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"Testing" the Copyright Clause: Copyright Protection for Educational and Psychological Tests

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I. INTRODUCTION

Each year high school students across the United States take the Scholastic Aptitude Test ("SAT") to be considered for admission to most colleges in the United States.¹ Similarly, medical school applicants take the Medical College Admissions Test ("MCAT"),² and law school applicants take the Law School Admissions Test ("LSAT")³ to be considered for admission to various graduate programs in this country. In preparation to take these various tests, some individuals buy books to help them study, such as *Barron's SAT: How to Prepare for the Scholastic Aptitude Test*;⁴ others take preparation courses that teach them test strategies and how to interpret questions by giving them examples of and sample solutions to questions.⁵

Students who prepare for these standardized tests are provided sample questions which closely parallel actual test questions. Students hope that through practicing with sample questions they will improve their scores on the actual test.⁶ Who supplies students with these questions does not matter to the students, but the students want to make sure the questions are the same as, or at least virtually identical to, the actual questions on the examinations. After all, what good would it do to practice taking a test that was completely different from the type of test they are expected to take for admission to various schools? However, the review books and courses are often not offered or authorized by the actual companies who administer such tests; thus, a potential copyright problem arises. The review books and courses use questions that either come directly from the tests themselves or are modeled upon the actual tests. Are the tests copyrightable in the first place? Do the mimicking questions offered by the review courses

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1. COLLEGE ENTRANCE EXAMINATION BOARD, SAT AND ACHIEVEMENT TESTS REGISTRATION BULLETIN (1989-1990)[hereinafter SAT BULLETIN].
 2. ASSOCIATION OF AMERICAN MEDICAL COLLEGES, MEDICAL COLLEGE ADMISSION TEST (MCAT): ANNOUNCEMENT AND REGISTRATION BOOKLET (1990)[hereinafter MCAT ANNOUNCEMENT].
 3. LAW SCHOOL ADMISSION COUNCIL & LAW SCHOOL ADMISSION SERVICES, REGISTRATION INFORMATION AND MATERIALS FOR: LAW SCHOOL ADMISSION TEST (LSAT)(1990).
 4. S. BROWNSTEIN, M. WEINER & S. WEINER GREEN, BARRON'S SAT: HOW TO PREPARE FOR THE SCHOLASTIC APTITUDE TEST (15th ed. 1989)(the questions that are taken from actual SAT's are used with permission of the College Entrance Examination Board). See also ARCO'S PREPARATION FOR THE SAT (E. Deptula ed. 8th ed. 1989)(not affiliated with the College Board); J. BOBROW & W. COVINO, CLIFF'S SAT PREPARATION GUIDE (1989)(not affiliated with the College Board).
 5. Review courses have often been the subject of copyright law suits. See, e.g., Educational Testing Serv. v. Katzman, 793 F.2d 533, 539 (3d Cir. 1986)(review course for SAT).
 6. In fact, practice can raise a score by as much as 100 points on the SAT. See, e.g., J. WEISS, B. BECKWITH & B. SCHAEFFER, STANDING UP TO THE SAT 78, 128 (1989)(i.e., guessing can raise a score as much as 20 points, and budgeting time can add 7-10 points for each additional answer correct).

and books infringe upon the test makers' copyrights? Even if they do, what circumstances would constitute fair use of the test makers' questions?

In addition to educational tests such as the SAT, MCAT, and LSAT, there are various psychological tests that pose a similar problem. As psychological tests, such as the California Psychological Inventory ("CPI"),⁷ become more commonly used in personnel selection,⁸ books may be written to aid employees in responding in such a way as to maximize positive personality traits. Furthermore, even text books that teach students about psychological tests, how they are constructed, and how they are scored, may use examples from actual tests or similar wordings to relate the conceptual ideas which underly the questions.⁹ In such cases, the possibility of copyright infringement is also present.

Beyond the review courses or even text books which explain how psychological and educational tests are constructed and scored,¹⁰ there remains the possibility that a competitor could borrow substantial portions of an existing test and construct a new test using the same or substantially similar questions. Would such a use be permitted?

There is also the possibility that psychological tests in particular

7. Information on how to get copies of the test, answer sheets, and scoring manuals may be obtained from 1 THE NINTH MENTAL MEASUREMENTS YEARBOOK 249 (J. Mitchell ed. 1985)(copies available from the test's publisher for a fee)[hereinafter 1 MENTAL MEASUREMENTS YEARBOOK].

8. See L. CRONBACH, ESSENTIALS OF PSYCHOLOGICAL TESTING 358-405 (4th ed. 1984); D. GOSLIN, THE SEARCH FOR ABILITY: STANDARDIZED TESTING IN SOCIAL PERSPECTIVE (1963); H. GULLIKSEN, THEORY OF MENTAL TESTS (1950); M. HOLMEN & R. DOCTER, EDUCATIONAL AND PSYCHOLOGICAL TESTING: A STUDY OF THE INDUSTRY AND ITS PRACTICES (1972); R. KAPLAN & D. SACCUZZO, PSYCHOLOGICAL TESTING: PRINCIPLES, APPLICATIONS, AND ISSUES 161-77 (2d ed. 1989); D. SUPER & J. CRITES, APPRAISING VOCATIONAL FITNESS BY MEANS OF PSYCHOLOGICAL TESTS (rev. ed. 1962); R. THORNDIKE, PERSONNEL SELECTION: TEST AND MEASUREMENT TECHNIQUES (1969); P. WISE, THE USE OF ASSESSMENT TECHNIQUES BY APPLIED PSYCHOLOGISTS 67-77 (1989); Noty, *Industrial and Vocational Selection*, in FUNCTIONAL PSYCHOLOGICAL TESTING: PRINCIPLES AND INSTRUMENTS 425-46 (R. Cattell & R. Johnson eds. 1986).

9. For examples of texts that teach how tests are constructed, see L. AIKEN, PSYCHOLOGICAL TESTING AND ASSESSMENT 247, 261, 264 (3d ed. 1979)(examples from the Omnibus Personality Inventory, Rorschach Inkblot Test, and Thematic Apperception Test); A. ANASTASI, PSYCHOLOGICAL TESTING 308, 316-17 (5th ed. 1982)(sample items used in the Otis-Lennon School Ability Test and Scholastic Aptitude Test); Gough, *The California Psychological Inventory*, in 2 MAJOR PSYCHOLOGICAL ASSESSMENT INSTRUMENTS 67, 73 (C. Newmark ed. 1985); Newmark, *The MMPI*, in 1 MAJOR PSYCHOLOGICAL ASSESSMENT INSTRUMENTS 11, 19-21, 25-29, 31-33, 35-36 (C. Newmark ed. 1985).

For a discussion of the copyright problems that might arise with respect to a person writing a text book, see *infra* notes 188, 238, & 240.

10. Sometimes, the term "review course preparers" is used in this Comment. When this term is used, it is meant to cover both those developing the actual review courses and those writing books that guide students in preparing for the tests.

would be used in experiments to demonstrate how the tests are related to other measurement instruments.¹¹ Often this process involves the duplication of the tests for administration. In other situations, educational and psychological tests may be examined by critical researchers who seek to test the validity of the creators' instruments.¹² Again, this process may involve the duplication of the tests for administration. Are these uses fair uses under copyright law?

In Part II of this Comment, a brief overview of how educational and psychological tests are constructed will be given, laying the foundation for arguments in favor of granting copyright protection to tests so that situations under which others may use the actual questions or questions similar to ones in the copyrighted tests should be minimized.¹³ Part II will demonstrate that educational and psychological tests involve a great deal of intellectual and creative labor in terms of choice of questions, selection of the form of questions, and standardization of the tests. Thus, tests should receive copyright protection in order to protect the creators' investment and provide incentive to the authors of the tests to construct such measurement instruments.

Part III will discuss the basis for granting tests copyright protection. It will demonstrate that tests are properly considered writings within the meaning of the copyright clause of the constitution¹⁴ and "original works of authorship fixed in a tangible medium of expression" under the current copyright law.¹⁵

In Part IV, the scope of protection given to such works will be discussed. It will be demonstrated that even if the tests are properly viewed as factual works, they deserve protection for the selection and arrangement of the items on the test. It will be argued that tests should be given a broad scope of protection primarily because of the vast amount of intellectual and creative labor involved in their construction. While the underlying factual information, such as the mathematical or grammatical facts, may not be protectable, the tests themselves are deserving of copyright protection.¹⁶

The possibility of categorizing tests as discoveries will also be dis-

11. See, e.g., Rossi, *Aptitudes as Predictors of Achievement Moderated by Teacher Affect*, in *MEASURING HUMAN ABILITIES: NEW DIRECTIONS FOR TESTING AND MEASUREMENT* 59-86 (W. Schrader ed. 1981)(correlations between test and performance).

12. In addition to these types of research uses, there is also the possibility that a researcher would use certain tests as a means to select subjects for an experiment, i.e., select subjects who score in the highest percentiles on an achievement test. These and other uses that involve an exact duplication of a test raise the same issues. Thus, they will not be considered separately.

13. See *infra* notes 26-94 and accompanying text.

14. See *infra* notes 95-102 and accompanying text.

15. See *infra* notes 103-12 and accompanying text.

16. See *infra* notes 129-46 and accompanying text.

cussed. Although tests may be considered discoveries in the scientific world, they are not properly considered discoveries within the meaning of copyright law.¹⁷

In addition, the possibility of categorizing tests as functional works will be discussed, and in that context as well as in the context of considering the copyrightability of individual items on these tests, the doctrine of merger will be discussed.¹⁸ It will be argued that the doctrine of merger should not apply to the tests as a whole¹⁹ or to individual items²⁰ because there are any number of ways a defendant could word specific items to express particular concepts or construct a particular test to measure some underlying construct such as aptitude or personality.

Because the tests are protectable, the question arises whether a defendant may borrow from a copyright owner's test.²¹ Part V will discuss fair use as a defense to infringement. The fair use defense will be discussed in the context of three separate uses: explanation or teaching purposes;²² competitive testing purposes;²³ and research, in which the tests are studied for their reliability and validity and where correlations between these tests and other measurement instruments or behaviors are sought.²⁴

In Part VI, it will be concluded that tests should be given a broad scope of copyright protection because of the intellectual and creative labor involved in their creation. Therefore, competitors who either seek to build new tests to compete with a test maker's creation or conduct a review course to prepare people to take the test should not be permitted to copy verbatim or closely paraphrase an existing test. Their infringement should not be excused as a fair use because the original test's value is diminished.

However, in the research context, researchers should be given some latitude to copy a protected test. Researchers who test the reliability or validity of *that* test or correlate *that* test with other measure-

17. See *infra* notes 147-60 and accompanying text.

18. In some circumstances, there is said to be a "merger" of idea and expression. In such instances, protecting the expression would confer a monopoly over the idea itself. M. NIMMER, 3 NIMMER ON COPYRIGHT § 13.03[B][3] (1990).

It is not always clear whether the merger doctrine is deemed to prevent the work from being copyrightable in the first instance, or whether the doctrine should be raised as a defense to the charge of infringement to argue that the work should not receive copyright protection because the idea and expression of that idea are inseparable. *Id.* In this Comment, the merger arguments will be raised as the defendants did in defending against infringement charges.

19. See *infra* notes 161-90 and accompanying text.

20. See *infra* notes 191-98 and accompanying text.

21. See *infra* notes 113-28, 199 and accompanying text.

22. See *infra* notes 208-42 and accompanying text.

23. See *infra* notes 243-55 and accompanying text.

24. See *infra* notes 256-73 and accompanying text.

ment instruments or behaviors do not diminish the value of the test so long as the work has already been made public. However, if the researchers have taken secure tests and administered them, such a use would not be a fair use, as the author would no longer be able to reuse the items. Only when a second user, such as a researcher, is able to promote the progress of science without significantly diminishing the value of the author's test should he or she be permitted to copy the author's test.²⁵

II. HOW EDUCATIONAL AND PSYCHOLOGICAL TESTS ARE CONSTRUCTED

It is not the purpose of this Comment to present a detailed discussion of the systematic approach to test construction but rather to raise some of the issues involved in the construction of tests, including item selection and choice of response format, standardization, and assessment of reliability and validity. As will be demonstrated, the test construction process is an extremely demanding one, both in terms of intellectual thought and creative effort.²⁶

A. Overview

The social sciences attempt to explain and sometimes predict human behavior.²⁷ In order to explain or predict behavior such as performance in college, scientists gather data that will enable them to formulate an explanation or prediction.²⁸ Measurement is the tool scientists use to collect such data.²⁹

Measurement begins with the idea that aptitudes, knowledge, or traits of individuals can be quantified or positioned along a continuum or classified into different groups on the basis of responses to the measurement instruments.³⁰ The way in which these aspects of individuals are measured is through *tests*.³¹

Tests are built on theories of what these aptitudes, knowledge, or traits are. Theories begin to develop when a researcher notices a "pat-

25. See *infra* notes 274-78 and accompanying text.

26. This intellectual and creative labor is what may be protected by copyright. See *infra* notes 135-36 and accompanying text.

27. W. TORGERSON, *THEORY AND METHODS OF SCALING* 1 (1958).

28. *Id.*

29. *Id.*

30. B. WRIGHT & G. MASTERS, *RATING SCALE ANALYSIS* 1 (1982).

31. Every person who is reading this Comment has had experience with tests. A test is simply a measurement tool. For example, a math test may measure how well someone can add, subtract, multiply, and divide, as well as do algebra, geometry, calculus, and other mathematical operations. R. KAPLAN & D. SACCUZZO, *supra* note 8, at 4. A test is composed of items. Items are specific questions to which a person may respond. A psychological or educational test is a set of items designed to measure characteristics of human beings. *Id.*

tern of related experiences and [has] an *idea* about these experiences which helps [him or her] remember their pattern."³² Just as these theories require creative development and intellectual thought to explain human beings' nature, so do the tests which measure those characteristics.³³

When a researcher decides to measure human characteristics, he or she is faced with an initial, seemingly elementary question: "What kind of test should I use?"³⁴ However, once the researcher begins to think about the ways to construct the test, including what items to select, the task of test construction becomes much more difficult and challenging.³⁵

The researcher must begin by asking: "What are the objectives and purposes of the test?"³⁶ For example, the researcher might conclude that this will be an achievement test in mathematics, and the purpose of the test is to select students who will best be able to handle a calculus course in college. This purpose will dictate to a large degree the content of the test,³⁷ i.e., the researcher will not be choosing elementary items such as " $1 + 1 = ?$ " but will be asking more difficult

32. B. WRIGHT & G. MASTERS, *supra* note 30, at 1 (emphasis in original).

33. See L. AIKEN, ASSESSMENT OF INTELLECTUAL FUNCTIONING (1987); D. BLOOD & W. BUDD, EDUCATIONAL MEASUREMENT AND EVALUATION (1972); F. BROWN, PRINCIPLES OF EDUCATIONAL AND PSYCHOLOGICAL TESTING (2d ed. 1976); C. COPPERUD, THE TEST DESIGN HANDBOOK (1979); L. CRONBACH, *supra* note 8; W. DICK & N. HAGERTY, TOPICS IN MEASUREMENT: RELIABILITY & VALIDITY (1971); EDUCATIONAL TESTING AND EVALUATION: DESIGN, ANALYSIS, AND POLICY (E. Baker & E. Quellmatz eds. 1980); F. FREEMAN, THEORY AND PRACTICE OF PSYCHOLOGICAL TESTING (3d ed. 1962); R. GREGORY, ADULT INTELLECTUAL ASSESSMENT (1987); R. HAMBLETON & H. SWAMINATHAN, ITEM RESPONSE THEORY: PRINCIPLES AND APPLICATIONS (1985) (particular type of theoretical framework for test construction); K. HOPKINS & J. STANLEY, EDUCATIONAL AND PSYCHOLOGICAL MEASUREMENT AND EVALUATION (6th ed. 1981); P. KLINE, PSYCHOMETRICS AND PSYCHOLOGY 15-23 (1979) (psychometrics is both an art and a science); P. KLINE, PSYCHOLOGICAL TESTING: THE MEASUREMENT OF INTELLIGENCE, ABILITY AND PERSONALITY (1976); W. MEHRENS & I. LEHMANN, MEASUREMENT AND EVALUATION IN EDUCATION AND PSYCHOLOGY (1973); PERSPECTIVES IN EDUCATIONAL AND PSYCHOLOGICAL MEASUREMENT (G. Bract, K. Hopkins & J. Stanley eds. 1972); G. ROBB, L. BERNARDONI & R. JOHNSON, ASSESSMENT OF INDIVIDUAL MENTAL ABILITY (1972); J. RUST & S. GOLOMBOK, MODERN PSYCHOMETRICS: THE SCIENCE OF PSYCHOLOGICAL ASSESSMENT (1989); V. SEREBRIAKOFF, A GUIDE TO INTELLIGENCE AND PERSONALITY TESTING (1988); M. SHAYCOFT, HANDBOOK OF CRITERION REFERENCED TESTING: DEVELOPMENT, EVALUATION AND USE (1979); TEST DESIGN: DEVELOPMENTS IN PSYCHOLOGY AND PSYCHOMETRICS (S. Embretson ed. 1985). See also N. O'BRIEN, TEST CONSTRUCTION: A BIBLIOGRAPHY OF SELECTED RESOURCES (1988).

34. R. KAPLAN & D. SACCUZZO, *supra* note 8, at 140.

35. Not all tests include the same type of items. See *id.* at 140, 307-28, 362-411 (compare the construction of achievement and aptitude tests with personality tests).

36. *Id.* at 140.

37. *Id.*

questions from geometry, algebra, trigonometry, and analytic geometry.

A researcher will also have to ask: "What type of response will be required?"³⁸ For example, the researcher will have to decide whether there will be a "right" answer.³⁹ If the test requires right and wrong answers, the researcher will usually use a true-false, multiple choice, or matching format.⁴⁰

Even after the researcher decides what his or her goals are and what questions to ask, the researcher's job continues. The researcher must also ask, "How will these items be scored?"⁴¹ For example, will there be several different sub-scores for certain items, or will there be one total score? Furthermore, the test must be standardized so that it will be useful for a specific population.⁴² For instance, the SAT has been standardized using college-ready students, so that future tests will be useful in interpreting such students' abilities. These steps are required in order for the test to be considered reliable and valid, two essential characteristics of a "good" test.⁴³

B. Selection of Test Objectives

As discussed above, the objectives or purposes of a test will influence the choice of questions the researcher will make. To illustrate this phenomena, consider the achievement test situation. The clearest definitions of objectives for achievement or aptitude tests are phrased in terms of knowledge, understanding, and abilities the researcher expects the respondent to demonstrate.⁴⁴ The researcher might list the

38. *Id.*

39. Achievement and aptitude tests are among the type of test requiring a single, "right" answer. See, e.g., J. BORMUTH, ON THE THEORY OF ACHIEVEMENT TEST ITEMS 34-55 (1970)(construction of achievement test items); W. MEHRENS & R. EBEL, PRINCIPLES OF EDUCATIONAL AND PSYCHOLOGICAL MEASUREMENT: A BOOK OF SELECTED READINGS (1967); W. MEHRENS & I. LEHMANN, STANDARDIZED TESTS IN EDUCATION (1969); J. NUNNALLY, EDUCATIONAL MEASUREMENT AND EVALUATION (2d ed. 1972); ON EDUCATIONAL TESTING (S. Anderson & J. Helmick eds. 1983); R. TYLER, CONSTRUCTING ACHIEVEMENT TESTS (1934); D. WOOD, TEST CONSTRUCTION: DEVELOPMENT AND INTERPRETATION OF ACHIEVEMENT TESTS (1961); Blaine & Mernfield, *Achievement and Proficiency Measures*, in FUNCTIONAL PSYCHOLOGICAL TESTING: PRINCIPLES AND INSTRUMENTS 189-207 (R. Cattell & R. Johnson eds. 1986); Ebel, *Achievement Test Items: Current Issues*, in SOCIAL AND TECHNICAL ISSUES IN TESTING: IMPLICATIONS FOR TEST CONSTRUCTION AND USAGE 141-54 (B. Plake ed. 1984).

40. R. KAPLAN & D. SACCUZZO, *supra* note 8, at 140.

41. See, e.g., P. KLINE, A HANDBOOK OF TEST CONSTRUCTION 179 (1986)(discussing factor-analytic test construction the aim of which is to develop a test that measures one factor only and which yields a total score versus subscores).

42. *Id.* at 159-74.

43. For materials regarding the reliability and validity of tests, see W. DICK & N. HAGERTY, *supra* note 33.

44. K. HOPKINS & J. STANLEY, *supra* note 33, at 169.

following objectives for a test of mathematical aptitude: 1) be able to perform mathematical operations; 2) be able to perform simple addition, subtraction, multiplication, and division operations; 3) be able to perform computations involving any two single-digit numbers, two-digit numbers, or three-digit numbers; and 4) be able to compute numbers when they are represented in word problems.⁴⁵ These specific objectives will dictate what specific questions are chosen to be included on the test and how they are worded, as will be discussed below.⁴⁶

C. Selection of Items

Based on the objectives formulated by the researcher, the researcher will begin to select test items that will reflect the specific objectives.⁴⁷ When one stops to think about the achievement test situation in particular, the possible items available seem endless. For example, to test the third objective in the achievement situation above, a researcher could ask: "What is $25 + 30$?" or "What is 25×30 ?" or "What is 300 divided by 100?" or "What is $450 - 45$?" As suggested by the fourth objective, these particular questions could be given in the form of word problems. However, there is nothing to suggest that these are the only numbers that could be used to test the concepts of addition, multiplication, division, or subtraction. Similarly, there is nothing to suggest that the questions themselves have to be worded in the above forms. For example, the computation for the

45. *Id.* at 168. Similarly, for personality tests, the objectives might be expressed in terms of attitudes or opinions, likes or dislikes, self-descriptions, values, and interests. *Id.* at 169. For example, the researcher might list the following objectives for a test to determine susceptibility to depression: 1) determine how sad the individual generally is; 2) determine how tired or listless the individual feels; and 3) determine whether the individual feels suicidal. The Beck Depression Inventory is one test that uses these concepts as a basis for its questions. See A. BECK, *DEPRESSION: CLINICAL, EXPERIMENTAL, AND THEORETICAL ASPECTS* (1967). Again, these specific objectives will dictate what specific questions are chosen to be included on the test and how they are worded.

46. The specific objectives, of course, will originate with the underlying theory. Although this discussion is proceeding from the assumption that the researcher has already developed the theory upon which the measurement tool is built, one must remember that the development of the theory itself is not an easy task, and in many cases, much prior experimentation must be done in order to determine the range of characteristics that go into a particular construct. For example, is aptitude one thing or several — mathematical, verbal, logical, etc? For a discussion of this particular issue in the context of intelligence testing, see L. AIKEN, *supra* note 33; B. EVANS & B. WAITES, *IQ AND MENTAL TESTING: AN UNNATURAL SCIENCE AND ITS SOCIAL HISTORY* (1981); H. EYSENCK, *THE STRUCTURE AND MEASUREMENT OF INTELLIGENCE* (1979); D. WESCHLER, *THE MEASUREMENT AND APPRAISAL OF ADULT INTELLIGENCE* (4th ed. 1958).

47. K. HOPKINS & J. STANLEY, *supra* note 33, at 176.

addition of 25 and 30 could be worded in *at least* two other ways: "Add the numbers 25 and 30" and "25 + 30 = ?"

The selection and wording of specific questions is only limited by the researcher's creativity. A creative researcher could include any variety of questions on the test so long as they directly tested the constructs⁴⁸ of interest.

D. Selection of Item Response Style

If choosing the actual content of the question and the answer was not difficult enough, a researcher also has to determine what type of response form will be used for each question.⁴⁹ Response form will be very important, in part because it will affect the scoring procedures adopted by the researcher.⁵⁰

There are several response styles possible. First, a dichotomous format offers two alternatives for selection of only one of the alternatives, *e.g.*, a true-false test question.⁵¹ Second, a polychotomous format is one in which each item has more than two alternatives. A multiple choice examination is an example of this type of test.⁵² Third, a Likert format may be used.⁵³ Such a format is typically used in attitude scale construction.⁵⁴ A scale using this format would consist of a series of items such as "I feel sad every day." Rather than giving a yes or no response, five alternatives are offered: strongly disagree, disagree, neutral, agree, and strongly agree.⁵⁵

A fourth alternative is a category scale response.⁵⁶ In this format, the respondent is asked to rate a particular item on a number-point scale, most typically a ten-point scale.⁵⁷ A fifth type of response style would be in a checklist format. For instance, in personality measurement, a person might be given an adjective checklist and asked to indicate whether each adjective was characteristic of himself or herself.⁵⁸

48. A "construct" is just a psychological term for "concept." Constructs in psychology include intelligence and aptitude.

49. R. KAPLAN & D. SACCUZZO, *supra* note 8, at 140.

50. *See, e.g.*, P. KLINE, *supra* note 41, at 111-17 (attitude scale construction and scoring).

51. R. KAPLAN & D. SACCUZZO, *supra* note 8, at 140.

52. *Id.* at 142-43.

53. *Id.* at 143. For the original source regarding Likert scales, see Likert, *A Technique for the Measurement of Attitudes*, in ARCHIVES OF PSYCHOLOGY No. 40 (1932).

54. R. KAPLAN & D. SACCUZZO, *supra* note 8, at 143.

55. *Id.*

56. *Id.*

57. *Id.* at 144-46.

58. *Id.* at 144. The Multiple Affect Adjective Checklist ("MAACL") is an example of a test which employs this method. For information on how to get copies of the MAACL, see 2 THE NINTH MENTAL MEASUREMENTS YEARBOOK 1022 (J. Mitchell ed. 1985)[hereinafter 2 MENTAL MEASUREMENTS YEARBOOK].

There are other formats for items and their responses, and certainly, a creative researcher could come up with many ways of asking questions and seeking responses that have not been considered before. The key issues in the item writing and response style selection are creativity and understanding how the items are related to the purposes and objectives of the test. Two commentators concluded that "writing good items remains an art rather than a science. There is no substitute for using precise language, knowing the subject matter, being familiar with the level of examinees, and using your imagination."⁵⁹

E. Deciding Whether the Items Written Are "Good"

One would expect a "good" test to have "good" items. However, what are good items?⁶⁰ Item analysis is a general term for a set of methods used to evaluate test items.⁶¹ The most common form of item analysis involves assessment of item difficulty.⁶²

Briefly, item difficulty reflects how hard the items are.⁶³ In deciding how difficult the items should be, the researcher must consider uses of the test and the type of items to be included.⁶⁴ For example, for a test that measures achievement, item difficulty is defined by the number of people who get a particular item correct. Easier items are found as the proportion of people who answer the item correctly rises. An optimum difficulty level for items is somewhere between one hundred percent of the respondents who answer the item correctly and the success rate expected by chance alone.⁶⁵ For instance, with most achievement or aptitude tests, the researcher will not want all items to be of equal difficulty. Instead, items should represent a variety of difficulty levels in order to discriminate among people who know rudimentary information and those who know "the extras."⁶⁶ To take a specific example, the MCAT would require a concentration of difficult items, since the MCAT is used to select medical students, and only a small number of qualified applicants can be accepted.⁶⁷ By using more difficult items, the MCAT can make finer discriminations between those applicants who are average and those who excel in science.

59. R. KAPLAN & D. SACCUZZO, *supra* note 8, at 147.

60. *Id.*

61. *Id.*

62. *Id.* at 148.

63. *Id.*

64. *Id.* See also G. ROID & T. HALADYNA, A TECHNOLOGY FOR ITEM-TEST WRITING 216-17 (1982).

65. If four possible choices for an answer are given to a subject, the subject will have a twenty-five percent chance of getting the item right if he or she only guesses at the answer. R. KAPLAN & D. SACCUZZO, *supra* note 8, at 147.

66. *Id.* at 148.

67. MCAT ANNOUNCEMENT, *supra* note 2, at 7.

Naturally, a researcher will construct many more items than will be included in the final version of the test he or she builds.⁶⁸ The reason is that once the researcher begins to have experimental subjects answer the questions, he or she will discover that some questions do not give the desired discrimination. For example, some questions may be so easy that virtually everyone gets them right. Such questions would be of little utility when the goal of the test is to identify only a handful of the "best" students.⁶⁹

F. Standardization of the Test

The process of having subjects answer the test questions to examine the item difficulty begins the test standardization process. Standardized tests are essential in education and psychology because they allow the comparison of a subject's score with that of the relevant comparison group. Thus, standardization enables the tester to make meaningful interpretations of a respondent's score.⁷⁰

The crucial aspect of standardization is defining the selected sample.⁷¹ In sampling, there are two important variables: representativeness and size.⁷² The sample must accurately represent the target population at which the test is aimed.⁷³ For example, in standardizing the Graduate Record Examinations ("GRE") that most students take in order to begin graduate work,⁷⁴ it would not make sense to standardize the test on a population of high school students; instead, students who have had the requisite college courses and who are planning to attend graduate school should participate in the standardization of the items. In fact, as new items are written, they are often included in the actual test that the students take in an effort to assess item difficulties. Although these items are not included in the applicants' scores for that test administration, the items with the appropriate levels of difficulty are used in future test administrations and do count in future applicants' scores.⁷⁵

68. For example, the authors of the Minnesota Multiphasic Personality Inventory ("MMPI") initially compiled a pool of more than one thousand items to be included in the test. However, after duplicates and items that had little significance in relation to the intended purpose of the inventory were deleted, the test was reduced to 504 items. See Newmark, *supra* note 9, at 11.

69. See R. KAPLAN & D. SACCUZZO, *supra* note 8, at 148.

70. P. KLINE, *supra* note 41, at 159. Standardization requires a variety of statistical computations generally known as computing "norms." These norms provide a frame of reference for interpreting scores of people who subsequently take the test. L. AIKEN, *PSYCHOLOGICAL TESTING AND ASSESSMENT* 81 (5th ed. 1985).

71. P. KLINE, *supra* note 41, at 159.

72. *Id.*

73. *Id.*

74. GRADUATE RECORD EXAMINATIONS BOARD, GRE INFORMATION BULLETIN (1990).

75. *Id.* at 29.

In addition, the sample must be sufficiently large to reduce errors in the data.⁷⁶ Statistically speaking, if the sample size is large enough, errors in measurement can be reduced to a minimum.⁷⁷ Thus, thousands of students are involved in the standardization of achievement or aptitude tests such as the SAT. Furthermore, this increased sample size not only reduces errors, it also increases the representativeness of the sample; by including more people from the appropriate population, the scores on the test will more accurately represent that population.⁷⁸

G. Reliability and Validity

Once the test is constructed and standardized, the "goodness" of the test must be assessed. To be useful, a standardized test must not only be consistent in what it measures, but it must also measure what it was designed to measure.⁷⁹ The concept of reliability of a test refers to its ability to consistently measure a construct under varying conditions.⁸⁰ Reliable tests are free from unsystematic errors, that is, random, unpredictable errors.⁸¹ Statistically, the reliability of a test may be obtained in a variety of ways including test-retest reliability and split-half reliability. To assess reliability using a test-retest approach, a test is administered to the same group of examinees on two separate occasions. Scores for the two administrations are then correlated with one another, and if the test is reliable, the correlation will be high.⁸² When a split-half method is used, a single test is considered to consist of two parts. When a respondent completes the test, often the score for half of the test is correlated with the other half of the test. Assuming that the two halves were statistically equivalent, the correlation between the two scores should be high.⁸³

The validity of a test is assessed by its ability to measure the construct that it purports to measure.⁸⁴ A researcher who questions the validity of a test would ask: 1) "Is the content of the questions valid?"⁸⁵ 2) "Is the test related to certain criteria, such as an achieve-

76. P. KLINE, *supra* note 41, at 159.

77. *Id.* at 159-60.

78. *Id.* at 160.

79. *Id.* at 84, 93.

80. *Id.* at 83.

81. *Id.* at 2-3.

82. *Id.* at 85-86. A correlation is a statistical analysis that allows a researcher to determine how related two "things" are. In this case, a correlation would allow a researcher to determine how related two measures are.

83. *Id.* at 86-88. For other methods of calculating the reliability of a test, see, e.g., P. KLINE, *supra* note 41, at 130-31.

84. L. AIKEN, *supra* note 70, at 93.

85. This question will lead to an assessment of the test's content validity. See *id.* at 94. See also P. KLINE, *supra* note 41, at 4.

ment test testing knowledge of science related to *past* performance in science classes?"⁸⁶ and 3) "Does the test have predictive validity, such as an achievement test testing knowledge of science being related to *future* performance in science classes?"⁸⁷ Validity can be assessed using statistical procedures. High validity is required in order to give any credence to the use of the test for any meaningful purpose.⁸⁸

H. Conclusions

Although this was a very brief discussion of how a test would be constructed, it appears clear that the process is something that takes a great deal of time.⁸⁹ Furthermore, it involves a great deal of intellectual and creative effort in order to select the subject matter and form of the questions and calculate the statistics that verify the test's reliability and validity. The standardization of tests is typically an expensive undertaking and may take years because of the number of subjects that have to be recruited for participation in the testing procedure.⁹⁰

While there are more than three thousand educational and psychological tests available today,⁹¹ only a handful are used consistently by

86. This question will lead to an assessment of the test's criterion validity. See M. SHAYCOFT, *supra* note 33. See also V. MARTUZA, *APPLYING NORM-REFERENCED AND CRITERION-REFERENCED MEASUREMENT IN EDUCATION* (1977).

87. This question will lead to an assessment of the test's predictive validity. See P. KLINE, *supra* note 41, at 5.

88. See L. CRONBACH, *supra* note 8, at 121-54; W. DICK & N. HAGERTY, *supra* note 33; S. LONG & P. SANDIFORD, *THE VALIDATION OF TEST ITEMS*, BULLETIN No. 3 OF THE DEPARTMENT OF EDUCATIONAL RESEARCH (1935). See also H. LYMAN, *TEST SCORES AND WHAT THEY MEAN* 21-33 (2d ed. 1971) (discussing reliability and validity); Anastasi, *Aptitude and Achievement Tests: The Curious Case of the Indestructible Strawperson*, in *SOCIAL AND TECHNICAL ISSUES IN TESTING: IMPLICATIONS FOR TEST CONSTRUCTION AND USAGE* 129-40 (B. Plake ed. 1984). For examples of how some researchers question the validity of certain tests as applied to some groups such as minorities, see R. SAMUDA, *PSYCHOLOGICAL TESTING OF AMERICAN MINORITIES: ISSUES AND CONSEQUENCES* (1975); Manning & Jackson, *College Entrance Examinations: Objective Selection or Gatekeeping for the Economically Privileged*, in *PERSPECTIVES ON BIAS IN MENTAL TESTING* 189-220 (C. Reynolds & R. Brown eds. 1984).

89. For example, construction of the MMPI began in the late 1930's. However, the MMPI was not ready for publication until 1943. See Newmark, *supra* note 9, at 11-12.

90. See R. THORNDIKE & D. LOHMAN, *A CENTURY OF ABILITY TESTING* (1990) (historical perspective).

91. See 1-2 *MENTAL MEASUREMENTS YEARBOOK*, *supra* notes 7 & 58; *THE SUPPLEMENT TO THE NINTH MENTAL MEASUREMENTS YEARBOOK* (J. Conoley, J. Kramer & J. Mitchell eds. 1988) (89 tests had been published since the 1985 publication of the *MENTAL MEASUREMENTS YEARBOOK*); *TESTS* (R. Sweetland & D. Keyser eds. 1983); *TESTS IN PRINT III: AN INDEX TO TESTS, TEST REVIEWS, AND THE LITERATURE ON SPECIFIC TESTS* (J. Mitchell ed. 1983) (2,672 entries).

educators and psychologists.⁹² These tests are ones whose items have been most carefully selected and that have been most carefully standardized so that they will have the highest reliability and validity.⁹³ Such tests were not developed overnight, and in many of the copyright cases, these "best" tests have been the subject of infringement suits.⁹⁴

III. THE BASIS FOR GRANTING COPYRIGHT PROTECTION TO EDUCATIONAL AND PSYCHOLOGICAL TESTS

A. Tests as Writings

The United States Constitution's Copyright Clause states that Congress shall have the power to "Promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries."⁹⁵ Under the copyright clause, only works which qualify as "writings" are protected by federal copyright legislation. "Writings" has been liberally construed in order to protect a broad variety of works, which represent the "physical rendering of the fruits of *creative intellectual . . . labor*."⁹⁶ In construing the meaning of writings, courts generally have expanded the term to encompass the technological developments of modern society.⁹⁷ Thus, the term "writings" is not confined to any narrow definition that would include novels and poetry, but also includes other writings such as computer programs⁹⁸ and advertisements.⁹⁹ Because the term "writings" has been interpreted broadly,¹⁰⁰ most courts have granted protection to educational and psychological tests even though the tests are in the form of questions¹⁰¹ or short

92. See MAJOR PSYCHOLOGICAL ASSESSMENT INSTRUMENTS ix-x (C. Newmark ed. 1985).

93. A cursory examination of the reviews of major tests such as the SAT reveals careful attention to standardization, item selection, and reliability and validity analyses. See, e.g., Cohn, *Review of College Board Scholastic Aptitude Test and Test of Standard Written English*, in 1 MENTAL MEASUREMENTS YEARBOOK, *supra* note 7, at 360-62 (high reliability and validity; more than 3,500 studies have demonstrated that SAT scores are correlated with college performance).

94. See *Applied Innovations, Inc. v. Regents of the Univ. of Minn.*, 876 F.2d 626 (8th Cir. 1989)(MMPI); *Educational Testing Serv. v. Katzman*, 793 F.2d 533 (3d Cir. 1986)(SAT); *Association of Am. Medical Colleges v. Mikaelian*, 571 F. Supp. 144 (E.D. Pa. 1983), *aff'd without opinion*, 734 F.2d 3 (3d Cir. 1984)(MCAT).

95. U.S. CONST. art. I, § 8, cl. 8.

96. *Goldstein v. California*, 412 U.S. 546, 561 (1973)(emphasis added).

97. M. NIMMER, 1 NIMMER ON COPYRIGHT, § 1.08[A] (1990).

98. See, e.g., *Whelan Assoc., Inc. v. Jaslow Dental Laboratory, Inc.*, 797 F.2d 1222, 1237 (3d Cir. 1986), *cert. denied*, 479 U.S. 1031 (1987)(copyright protection available to the structure, sequence, and organization of a computer program, as well as the literal computer code used).

99. See, e.g., *Bleistein v. Donaldson Lithographing Co.*, 188 U.S. 239 (1903)(protection for a poster advertising a circus).

100. See *International News Serv. v. Associated Press*, 248 U.S. 215, 234 (1918).

101. See *Rubin v. Boston Magazine Co.*, 645 F.2d 80, 83 (1st Cir. 1981).

phrases.¹⁰²

B. Tests as Original Works of Authorship

Although the writing requirement has been liberally construed, there are certain standards that a writing must meet in order to receive copyright protection. Current copyright law provides protection for "original works of authorship fixed in any tangible medium of expression."¹⁰³ The Copyright Act of 1976 defines seven categories of "works of authorship" including literary works. Because educational and psychological tests are written and consist of verbal statements, they can be considered literary works.¹⁰⁴

However, the contention has not been that tests do not fit the categorical subject matter of copyright. Rather, in some cases, defendants have tried to argue that the test statements are not copyrightable because they lack originality. However, courts typically reject such arguments¹⁰⁵ because originality does not require some high standard of novelty, but simply means that the work owes its origin to a particular author. One court explained:

The standard for "originality" is minimal. It is not necessary that the work be novel or unique, but only that the work have its origin with the author — that it be independently created. Little more is involved in this requirement than a "prohibition of actual copying."

To be the original work of an author, a work must be the product of some "creative intellectual or aesthetic labor." However, "a very slight degree of such labor[,] . . . almost any ingenuity in selection, combination or expression, no matter how crude, humble or obvious, will be sufficient" to make the work copyrightable.¹⁰⁶

In the case of educational and psychological tests, the selection of

102. See *Applied Innovations, Inc. v. Regents of the Univ. of Minn.*, 876 F.2d 626, 636 (8th Cir. 1989). In *Applied Innovations*, the defendant tried to argue that the test statements for the MMPI were not copyrightable because they were "short phrases" within the meaning of 37 C.F.R. § 202(1)(a) that prevents fragmentary words and phrases such as names, titles, or slogans from receiving copyright protection. However, the court stated that the test statements were "short simple, declarative statements," not "merely fragmentary words and phrases."

103. 17 U.S.C. § 102 (1988).

104. See *National Conference of Bar Examiners v. Multistate Legal Studies, Inc.*, 495 F. Supp. 34, 36 (N.D. Ill. 1980) (court rejected defendant's argument that the bar examination was not a "literary work" and not an "original work of authorship"), *aff'd in part and rev'd in part*, 692 F.2d 478 (7th Cir. 1982), *cert. denied*, 464 U.S. 814 (1983).

105. See *Applied Innovations v. Regents of the Univ. of Minn.*, 876 F.2d 626 (8th Cir. 1989); *Educational Testing Serv. v. Katzman*, 793 F.2d 533, 539 (3d Cir. 1986); *Rubin v. Boston Magazine Co.* 645 F.2d 80, 83 (1st Cir. 1981); *Association of Am. Medical Colleges v. Mikaelian*, 571 F. Supp. 144, 150 (E.D. Pa. 1983), *aff'd without opinion*, 734 F.2d 3 (3d Cir. 1984); *National Conference of Bar Examiners v. Multistate Legal Studies, Inc.*, 495 F. Supp. 34, 36 (N.D. Ill. 1980), *aff'd in part and rev'd in part*, 692 F.2d 478 (7th Cir. 1982), *cert. denied*, 464 U.S. 814 (1983).

106. *Applied Innovations, Inc. v. Regents of the Univ. of Minn.*, 876 F.2d 626, 635 (8th

items entails a great deal of intellectual and creative labor. For example, the MCAT contains many questions regarding scientific facts¹⁰⁷ that are only included in the test after such questions have been piloted and norms of responses obtained.¹⁰⁸ However, the decision about which questions the American Association of Medical Colleges ("AAMC") chooses to select and include in the test involves a great deal of effort, and then such questions have to be piloted so that norms of responses may be obtained.¹⁰⁹ Thus, the intellectual labor of these works should meet the requisite degree of originality required under the copyright act. In comparing them to compilations¹¹⁰ such as telephone directories, which are merely compilations of mundane lists of names, addresses, and telephone numbers, and which consistently have been granted copyright protection,¹¹¹ tests involve at least as

Cir. 1989)(quoting *West Publishing Co. v. Mead Data Central, Inc.*, 799 F.2d 1219, 1223 (8th Cir. 1986)).

107. These individual items may not be copyrightable, but the work as a whole may be protected. *See infra* note 110.

108. *See supra* text accompanying notes 74-75 (discussing piloting of GRE questions).

109. This effort was recognized by the court in *Association of Am. Medical Colleges v. Mikaelian*, 571 F. Supp. 144 (E.D. Pa. 1983), *aff'd without opinion*, 734 F.2d 3 (3d Cir. 1984). *See infra* text accompanying notes 130-36.

110. Some defendants have tried to argue that the individual items are not protectable, while recognizing that the items together may be protected as a compilation. A compilation is defined by the Copyright Act as "a work formed by the collection and assembling of preexisting materials or of data that are selected, coordinated, or arranged in such a way that the resulting work as a whole constitutes an original work of authorship." 17 U.S.C. § 101 (1988). In *Educational Testing Serv. v. Katzman*, 793 F.2d 533 (3d Cir. 1986), the court discussed the SAT as a possible compilation. The court, however, took the better view that the individual items may also be entitled to copyright protection independent from their protection as part of a compilation. The court stated:

The fact that a registrant [designates] the material as a compilation does not in itself signify that the constituent material is not also covered by the copyright. . . .

Although compilations or "collective" works may include uncopyrightable works, as well as previously copyrighted works, the fact that the registration was for compilations does not preclude protection for the material therein contributed by the author. Thus, we hold that if the questions are copyrightable, then ETS' registrations of the tests as compilations covered the questions.

Id. at 538-39.

111. *See, e.g.*, *Hutchinson Tel. Co. v. Fronteer Directory Co. of Minn.*, 770 F.2d 128 (8th Cir. 1985)(white pages in telephone directory); *Northwestern Bell Tel. Co. v. Bedco of Minn., Inc.*, 502 F. Supp. 299 (8th Cir. 1980)(yellow pages); *Southwestern Bell Tel. Co. v. Nationwide Indep. Directory Serv., Inc.*, 371 F. Supp. 900 (W.D. Ark. 1974); *Central Tel. Co. of Va. v. Johnson Publishing Co.*, 526 F. Supp. 838 (D. Colo. 1981)(copying of telephone directories without independent work constitutes infringement). *See also* *Eckes v. Card Prices Update*, 736 F.2d 859 (2d Cir. 1984)(guide to over 18,000 collectible baseball cards was copyrightable); *Schroeder v. William Morrow & Co.*, 566 F.2d 3 (7th Cir. 1977)(gardener's directory). Such compilations may contain individual items that are in the public domain,

much effort.¹¹²

IV. INFRINGEMENT AND THE SCOPE OF COPYRIGHT PROTECTION

Copyright protection was granted to authors in order to provide an incentive for people to produce such works.¹¹³ Incentives are provided through the recognition of exclusive rights to reproduce and distribute such works.¹¹⁴ However, there is an inherent conflict between the author's right to restrict access to the work and the need to maximize dissemination of the work to the public for its benefit.¹¹⁵ This conflict leads to the result that copyright protection cannot be claimed for "ideas."¹¹⁶ Nor can facts receive copyright protection.¹¹⁷ In addition, copyright protection does not extend to any "procedure, process, system, method of operation, concept, principle, or discovery, regardless of the form in which it is described, explained, illustrated, or embodied in such a work."¹¹⁸ Generally, copyright protects only the author's particular "expression" of the facts, ideas, discoveries, procedures, or concepts.¹¹⁹

When a defendant copies the expression of a test, such copying may be an infringement upon the plaintiff's copyright. Courts use a two-part analysis to determine whether a defendant has infringed the plaintiff's work. First, courts will determine whether the defendant

and thus, not entitled to copyright protection. However, the complete work may be protected because of its selection and arrangement of the items. *See supra* note 110 (defining compilations).

112. *See Educational Testing Serv. v. Katzman*, 793 F.2d 533, 538 (3d Cir. 1986)(discussing SAT as a possible compilation).

For other cases involving copyright protection for labor expended, see *West Publishing Co. v. Mead Data Central, Inc.*, 799 F.2d 1219 (8th Cir. 1986), *cert. denied*, 107 S. Ct. 962 (1987)(case arrangement). *Cf. Matthew Bender & Co., Inc. v. Kluwer Law Book Publishers, Inc.*, 672 F. Supp. 107 (S.D.N.Y. 1987)(limited number of ways to arrange information about personal injury and wrongful death settlements).

113. *See Mazer v. Stein*, 347 U.S. 201, 219 (1954)("encouragement of individual effort by personal gain is the best way to advance public welfare through the talents of authors"). *See generally* M. NIMMER, *supra* note 97, at § 1.03.

114. 17 U.S.C. § 106 (1988).

115. *See Denicola, Copyright in Collections of Facts: A Theory for the Protection of Nonfiction Literary Works*, 81 COLUM. L. REV. 516 (1981).

116. 17 U.S.C. § 102(b)(1988). *See, e.g., Mazer v. Stein*, 347 U.S. 201 (1954)(copyright protection in statuettes for lamp); *Whelan Assoc., Inc. v. Jaslow Dental Laboratory, Inc.*, 797 F.2d 1222, 1234 (3d Cir. 1986), *cert. denied*, 479 U.S. 1031 (1987)(computer program for the operation of a dental laboratory).

117. *E.g., Harper & Row, Publishers, Inc. v. Nation Enter.*, 471 U.S. 539, 547 (1985)("no author may copyright facts or ideas").

118. 17 U.S.C. § 102(b)(1988).

119. *Id.*

has copied the plaintiff's test.¹²⁰ Second, courts will determine whether the defendant's work is substantially similar to the plaintiff's work.¹²¹ Liability can be found only if the work has been copied. There can be no infringement of a copyright, even if the works are similar, if the two works have been independently written.¹²²

Whether infringement in a particular case has occurred will, of course, depend upon the facts. In some cases, a defendant copied a plaintiff's test verbatim, and in such cases, courts found infringement. In other cases, a defendant only paraphrased a plaintiff's test; yet, even in those cases, often courts found infringement.¹²³

In many cases, potential infringers have argued that their use of the test questions cannot be an infringement upon a plaintiff's tests because they have copied merely ideas or facts¹²⁴ found in the copyrighted works, and such ideas or facts are not entitled to copyright protection.

Similarly, some defendants have argued that tests are discoveries that are not entitled to copyright protection.¹²⁵ Others could argue that the tests¹²⁶ or the items¹²⁷ themselves are functional works, and as such, the apparent infringement would result in no liability because functional works traditionally have received less copyright protection. Each of these arguments will be addressed below.¹²⁸

120. See, e.g., *Association of Am. Medical Colleges v. Mikaelian*, 571 F. Supp. 144, 149 (E.D. Pa. 1983), *aff'd without opinion*, 734 F.2d 3 (3d Cir. 1984).

121. *Id.*

122. See generally M. NIMMER, *supra* note 18, at § 13.01[B].

123. It is not the purpose of this Comment to examine the specific examples of precisely what words can and cannot be copied. These matters are highly factual. Nevertheless, some practical advice is presented *infra* in Part IV. E.

Even though a defendant may be considered an infringer, a defendant has available the defense of fair use, and in virtually every test case, the defendants have raised the fair use defense. However, in every one of the cases involving tests that have considered the issue, the courts have been unpersuaded by the defendants' arguments. The defense of fair use is discussed in Part V *infra*.

124. See *infra* notes 129-46 and accompanying text.

125. See *infra* notes 147-60 and accompanying text.

126. See *infra* notes 161-90 and accompanying text.

127. See *infra* notes 191-98 and accompanying text.

128. The competitive test maker or review course preparer may only "paraphrase" the original test. Therefore, there is the possibility that even if a court protects the expression of the original test, based on the facts of the case, there may be no infringement. However, the situation in which a critical researcher challenging the validity of the instrument or trying to correlate the instrument with other tests or behaviors copies the test verbatim for administration to research subjects presents a somewhat different issue because it is clear that both the ideas and the expression of the test have been copied. Absent a claim that the expression of the test questions should not be protected, there would be infringement, and the question would become whether what the researcher did was a fair use.

A. Tests as Factual Works

Some defendants have argued that there is nothing in educational and psychological tests that should receive copyright protection because the work contains nothing more than unprotectable facts.¹²⁹ For example, questions about chemical formulas or biological anatomy on the MCAT are questions about scientific facts. In *Association of American Medical Colleges v. Mikaelian*,¹³⁰ the defendants operated a test preparation business to help students prepare for the MCAT, a test used by medical schools as a selection device for potential medical students. AAMC had never allowed anyone to retain copies of the test, and no one was ever allowed to receive copies of questions after taking the test. AAMC stated that they have maintained tight security on their testing procedures and tests because they reuse test questions, and in order to keep the test fair, they did not want to give anyone access to the exact questions that could appear on the test.¹³¹

The defendants had used some of the exact questions found on the MCAT in their test preparation course. They contended that such use was permissible because the MCAT questions should not receive copyright protection. They argued that the questions were merely statements of scientific facts that were already in the public domain. However, the court disagreed. The court stated that the MCAT questions were the result of the original work of scientists and scholars employed by AAMC to create MCAT questions. Although any valid MCAT question would invoke scientific facts in order to pose problems that would test the scientific knowledge of the test taker, the "mere fact that MCAT questions refer to scientific facts does not place *these questions* in the public domain."¹³²

Although the facts may not be protected by copyright law, the specific questions the author chooses to include in the particular test and their particular expression may be granted copyright protection. To grant such protection would prohibit the direct appropriation of the individual items, without restricting access to other sources that might yield identical information.¹³³ Granting copyright protection to factual works provides an incentive and reward to the industrious author, and yet, others are free to use such facts in their own works so long as they generally do not appropriate a verbatim or closely paraphrased duplication of the author's work.¹³⁴

129. Similar arguments have been raised with respect to historical works. See, e.g., *Hoehling v. Universal City Studios, Inc.*, 618 F.2d 972 (2d Cir. 1980)(movie based on plaintiff's book about the Hindenburg disaster).

130. 571 F. Supp. 144 (E.D. Pa. 1983), *aff'd without opinion*, 734 F.2d 3 (3d Cir. 1984).

131. *Id.* at 147.

132. *Id.* at 150 (emphasis added).

133. Denicola, *supra* note 115, at 525.

134. *Id.* at 527.

In such cases, the particular selection of facts or the research and labor involved in compiling a factual work are protected by copyright. What is deserving of protection is the original contribution of the author, that is, the intellectual labor involved in creating the work.¹³⁵ In fact, the selection or choice of content is particularly original to the author of the work.¹³⁶

Some courts that have dealt with historical works have recognized the author's property interest in the results of research about what information will be included in a work. In *Toksvig v. Bruce Publishing Co.*,¹³⁷ the plaintiff had written a biography of Hans Christian Anderson. The plaintiff's book was the result of three years of research based exclusively upon original sources written in Danish. The defendant made use of the plaintiff's book in writing her own biography of Hans Christian Anderson; she made no attempt to examine the original sources since she was unable to read Danish. In commenting on the defendant's failure to consult the original sources, the court stated,

The question is not whether [the defendant] could have obtained the same information by going to the same sources, but rather did she go to the same sources and do her own independent research? . . . [T]he test is whether [the defendant] has made an independent production, or made a substantial and unfair use of [the plaintiff's] work.¹³⁸

The *Toksvig* case goes further than most cases in protecting the author's research. Less liberal cases such as *Hoehling v. Universal City Studios, Inc.*,¹³⁹ have limited protection to a close or exact taking of the author's language and have apparently not chosen to protect the underlying choice of the content. In *Hoehling*, the defendant made a motion picture about the Hindenburg disaster and based the movie's

135. *Id.* at 530. See also Note, *Copyright Law and Factual Works — Is Research Protected?* — *Miller v. Universal City Studios, Inc.*, 650 F.2d 1365 (5th Cir. 1981), 58 WASH. L. REV. 619, 631 (1983) (research is the primary original contribution and should be protected). Compare Note, *Copyright Protection for Compilations of Fact: Does the Originality Standard Allow Protection on the Basis of Industrious Collection?* 62 NOTRE DAME L. REV. 763, 778 (1987) (granting copyright protection on the basis of labor is only permissible when the labor expended involves intellectual effort, not merely "mechanical" labor).

136. See, e.g., *List Publishing Co. v. Keller*, 30 F. 772 (C.C.S.D.N.Y. 1887) (court prohibited defendant from using names of people plaintiff chose to include in his New York social register; defendant was trying to avoid the task of making independent selection of people to include in his own register).

137. 181 F.2d 664 (7th Cir. 1950).

138. *Id.* at 667. See also *Huie v. National Broadcasting Co.*, 184 F. Supp. 198, 200 (S.D.N.Y. 1960). Cf. *Miller v. Universal City Studios, Inc.*, 650 F.2d 1365 (5th Cir. 1981).

139. 618 F.2d 972 (2d Cir. 1980). See also *Miller v. Universal City Studios, Inc.*, 650 F.2d 1365 (5th Cir. 1981) (research underlying plaintiff's book about a kidnapping was not protected so that defendant was free to take the facts about the kidnapping to make a motion picture).

plot on a book written by the plaintiff. The court stated that the defendant's use did not infringe because the facts taken were in the public domain and even the plaintiff's interpretation of the historical event was not deserving of protection. The court distinguished fictional and nonfictional material in favor of giving public access to nonfictional material. The court held: "In works devoted to historical subjects, it is our view that a second author may make significant use of prior work, so long as he [or she] does not bodily appropriate the expression of another."¹⁴⁰ The court commented: "This principle is justified by the fundamental policy undergirding the copyright laws — the encouragement of contributions to recorded knowledge. . . . Knowledge is expanded . . . by granting new authors of historical works a relatively free hand to build upon the work of their predecessors."¹⁴¹

One commentator argues, however, that the public benefit derived from a second user's use is significantly diminished in those instances in which a defendant has added little or nothing to the plaintiff's contribution.¹⁴² The educational tests, in particular, present an opportunity for defendants to do independent research to decide what questions to include in review materials or in a test of their own. Even though the facts underlying the individual questions about the atomic weights of chemical elements, for example, that might appear on tests such as the MCAT might not be copyrightable, why should either a review course preparer or competitive test maker be able to take those questions directly from a plaintiff's test?¹⁴³ A defendant should not be able to appropriate a substantial number of questions by directly copying from a plaintiff.¹⁴⁴ Rather, such a defendant could independently consult a chart of atomic weights, easily found in virtually every chemistry textbook, and choose to include questions about the atomic weights of any number of chemical elements, including oxygen, hydrogen, mercury, or gold, if such was an independent selection and not merely a copying of a plaintiff's selection of those

140. *Hoehling v. Universal City Studios, Inc.*, 618 F.2d 972, 980 (2d Cir. 1980)(citation omitted).

141. *Id.* (footnote omitted).

142. *Denicola, supra* note 115, at 538. The amount of independent research conducted by the defendant, as well as the magnitude of the defendant's appropriation of information, is also relevant to a fair use defense. *Id.* at 538-39. *See infra* text accompanying notes 223-27.

143. Creative and intellectual effort was expended in both the selection of those specific facts upon which to base questions and in the wording of those questions. *See supra* text accompanying notes 47-48.

144. In addition to the number of items that can be taken, the quality or importance of the items must be considered when examining the question of infringement and fair use. *See, e.g., Harper & Row, Publishers, Inc. v. Nation Enter.*, 471 U.S. 539 (1985)(defendant took most important passages from President Ford's unpublished manuscript to include in a review of the book).

questions.¹⁴⁵

These type of defendants should not be permitted to appropriate an author's work without any consequences. Nevertheless, even if such users are found to be infringers, these defendants may be able to argue that such uses are fair uses, as discussed in Part V.

Although it seems relatively clear that a review course preparer or a competitive test maker should not be able to appropriate significant numbers of questions from an author's test, does the same analysis apply to a critical researcher who challenges the reliability or validity of the author's test, or who seeks to correlate the instrument with other tests or behaviors and copies the test for administration? In such a case, it is evident that not only have the facts been copied but also the author's expression of those facts. Thus, infringement is present absent permission to use the test for such purposes.¹⁴⁶ However,

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145. Cf. *Worth v. Selchow & Righter Co.*, 827 F.2d 569 (9th Cir. 1987), in which the author of two encyclopedias of trivia brought a copyright infringement action against the designers and marketers of *Trivial Pursuit*, a popular trivia game. The court held that the defendant's verbatim repetition of certain words in order to use the unprotectable facts did not constitute infringement. In addition, the court found that the arrangement of the plaintiff's work had not been copied. The court stated:

The arrangement of [the plaintiff's] book was not copied: His factual entries are arranged in alphabetical order; the *Trivial Pursuit* questions and answers are organized and color-coded by subject matter and randomly arranged on each game card. As for the selection, although [the plaintiff's] books were the source for many questions, the entire selection of facts in the books and game cards is not substantially similar. Factual works are not infringed in the absence of "bodily appropriation" of expression. Although [the defendant's] books may have been a major reference source for the authors of *Trivial Pursuit*, there was no "bodily appropriation" of [the defendant's] "selection" of 12,000 factual entries.

Id. at 573 (citations omitted).

146. Researchers typically grant permission to use their tests if they have been printed in journals or if the user pays a fee. An example below is a permission statement for the Personal Attributes Questionnaire ("PAQ") developed by Janet Spence and Robert Helmreich and published in a journal:

The PAQ . . . are copyrighted only to the extent that they appear in APA publications. APA routinely grants permission for use of [such instruments], contingent upon the permission of the authors. In the case of individuals with appropriate professional credentials who are bound by the APA Code of Ethics or its equivalent, or of students working under the supervision of such individuals, we uniformly grant permission to reproduce the instruments so that they may be employed in their research. This permission is contingent on the understanding that for ethical reasons, research participants are not informed about their individual scores and that their scores are treated as confidential information.

In return for this permission, we request to be informed about the outcome of the research.

J. Spence & R. Helmreich, *Personal Attributes Questionnaire* 6 (December 1986)(unpublished synopsis available from the authors regarding the instrument's utility; also included is a complete reference list as to which publications

in this particular case, a fair use defense may succeed; this defense will be discussed in Part V.

B. Tests as Discoveries

A "discovery" would be denied protection on the ground that it is not an "original" work.¹⁴⁷ The "discoverer" of a scientific fact, such as the existence of gravity, or any other "fact" may not claim to be the "author" of that fact. The discoverer simply records his or her discovery.¹⁴⁸ However, this denial of protection to the underlying procedures or discoveries, does not mean that copyright will be denied to the expression of that procedure, idea, or discovery. If a given procedure or discovery is reduced to written form, it will constitute a protected work of authorship, precluding unauthorized copying of the "expression" of the procedure. This will be true even if the underlying procedure itself could be copied.¹⁴⁹

Some defendants in suits for infringement of educational and psychological tests have argued that a plaintiff's test should not be protected because the test is a "discovery." Under section 101(b) of the Copyright Act of 1976,¹⁵⁰ there is no copyright protection for a discovery.¹⁵¹ However, there may be a valid copyright for an original expression of such discovery.¹⁵²

In *Rubin v. Boston Magazine Co.*,¹⁵³ the plaintiff had completed a dissertation entitled, "The Social Psychology of Romantic Love," that he had registered with the Copyright Office.¹⁵⁴ The dissertation established and validated a construct of romantic love to be used in research by psychologists concerned with social relationships. The dissertation was based upon the theory that there were three critical components of a love relationship: "'affiliative and dependent need,' 'predisposition to help' and 'exclusiveness and absorption.'"¹⁵⁵ Included in the dissertation were love and liking scales consisting of twenty-six questions designed to elicit the feelings of the person completing the questionnaire.¹⁵⁶

the actual scale has appeared in, along with lists of publications regarding its validity). For more information about this test, see *infra* note 251.

147. M. NIMMER, *supra* note 97, at § 2.03[E]. See *Rubin v. Boston Magazine Co.*, 645 F.2d 80 (1st Cir. 1981), discussed *infra* text accompanying notes 153-58.

148. M. NIMMER, *supra* note 97, at § 2.03[E].

149. *Id.* at § 2.03.

150. 17 U.S.C. § 102(b)(1988).

151. See *Mazer v. Stein*, 347 U.S. 201, 217-18 (1954); *Morrissey v. Proctor & Gamble Co.*, 379 F.2d 675, 678-79 (1st Cir. 1967); M. NIMMER, *supra* note 97, at § 2.03[D].

152. M. NIMMER, *supra* note 97, at 2.03[D].

153. 645 F.2d 80 (1st Cir. 1981).

154. *Id.* at 81.

155. *Id.*

156. Dr. Rubin's love and liking scales were also used in an article by Dr. Rubin and in

The defendant magazine publisher published an article about love, referring to the work of many psychologists and sociologists including the plaintiff, Dr. Rubin. It then included *verbatim* Dr. Rubin's scales as a test for readers to try.

The defendant tried to argue that the scales should not receive copyright protection because they were a discovery. The defendant based this claim upon Dr. Rubin's own commentary that accompanied the test in the publications resulting from his dissertation, as well as his trial testimony that his scales were a "scientifically valid method of determining whether two persons are in love."¹⁵⁷ Nevertheless, the court of appeals found that, irrespective of the scales' contribution to behavioral science,

they are certainly not a "discovery" as that term is used in copyright law. In copyright law a "discovery" refers primarily to the disclosure of a hitherto unknown fact, principle, or theory. The text of the scales makes it plain that they do not disclose any fact, principle or theory.

The scales are nothing but 26 questions which, on the basis of his theory . . . Dr Rubin with some degree of originality phrased and organized into two tables. Dr. Rubin does not claim copyright protection for his theory as to the essential components of love. What he claims [should be protected] are the scales setting forth questions based upon that theory.¹⁵⁸

The *Rubin* court's analysis is correct. The theory on which a questionnaire is based cannot be copyrighted, as the theory may be considered an idea or discovery. The basic idea of measuring and defining some trait cannot be protected by copyright.¹⁵⁹ Rather, only the particular expression that the test uses to measure those traits can be protected. While the scientific community might refer to a specific test as a "discovery" because it may represent a substantial advance over previous knowledge of how to measure underlying constructs such as aptitude, intelligence, personality, depression, or love, in copyright law they are not properly considered "discoveries."¹⁶⁰

a subsequent book by that author, both of which were properly registered at the Copyright Office. *Id.* at 81-82.

157. *Id.* at 83.

158. *Id.* (citations omitted).

159. These measures are not discoveries in the sense that the researchers have discovered the underlying traits. Just as when Sir Isaac Newton did his experiments involving gravity he and the scientific community found that Newton had "discovered" gravity, such an attribution is incorrect. Newton did not discover gravity, but merely found a way to measure it, *i.e.*, he dropped items from a certain distance and measured the speed with which they fell. The construct of gravity is "out there," just as the constructs of "intelligence" or "love" are considered to be givens. The measurement tools may be properly thought of as a means to measure what we believe to be "out there."

160. See also *Applied Innovations v. Regents of the Univ. of Minn.*, 876 F.2d 626, 636 (8th Cir. 1989)(test statements were not discoveries; rather, authors began with certain discovered facts, and then they made use of such facts on the basis of their "expertise and clinical experience").

As in the analysis of factual works, a review course preparer or competitive test maker should not be able to appropriate the author's test. The test is not a discovery, and thus, although the theory and ideas underlying the test may be copied, the expression of the author's ideas should not be. Again, however, if infringement has occurred, the defendant will probably raise a defense of fair use.

A researcher who challenges the reliability and validity of the test or correlates the test with other instruments or behaviors may wish to copy the test and administer it to research subjects. Because the expression of the test is protected, such a use would be infringing. Nevertheless, a fair use defense may be successful, as will be discussed in Part V.

C. The Complete Tests as Functional Works

Although educational and psychological tests are not "discoveries" within the meaning of copyright law, they may be considered functional works. Functional works, such as game rules, are designed to "accomplish specific tasks and their value turns primarily on their utility in accomplishing those tasks."¹⁶¹ Courts have treated functional works as a separate class of subject matter that cuts across section 102(a)'s several subject matter categories.¹⁶² For instance, a computer program, like a poem, is a "literary work," but unlike the nonfunctional poem that appeals to the senses or intelligence of the reader, the functional computer program's aesthetic appeal is only incidental to the program's primary purpose of accomplishing a specific task.¹⁶³ Considerations of utility will often require a functional work's expression to be closely tied to the unprotected ideas, processes, or methods of operation that it expresses.¹⁶⁴ Consequently, courts focus closely on the line between idea and expression in functional works and limit the scope of protection to avoid the monopolization of the "unprotectable, utilitarian elements."¹⁶⁵

Educational tests such as the MCAT, LSAT, or SAT may be considered functional works, because their primary value is determined by their utility to educators who make admissions selection decisions based upon the results of these tests. Similarly, psychological tests such as the Minnesota Multiphasic Personality Inventory ("MMPI") may be considered functional works because their value lies in their ability to make certain clinical assessments about personality characteristics or traits.

In considering the scope of protection available to functional

161. P. GOLDSTEIN, 1 COPYRIGHT: PRINCIPLES, LAW AND PRACTICE § 2.15 (1989).

162. *Id.*

163. *Id.*

164. *Id.*

165. *Id.*

works, courts have generally followed the Supreme Court's approach in *Baker v. Selden*.¹⁶⁶ In *Baker*, the plaintiff sought protection for original bookkeeping forms as well as for an explanation of how to use the forms. In order to use the plaintiff's system of bookkeeping, however, the forms had to be reproduced.¹⁶⁷ The defendant issued a book with forms that achieved the same result as the plaintiff's forms but used a different arrangement of columns and different headings. The plaintiff claimed that the defendants' work embodied a system which was similar to his system. Even though the defendant had not copied the plaintiff's forms, the Court considered the extent to which the plaintiff's forms could be given copyright protection. Essentially, the Court was concerned with what would happen if the copyright protection granted under the Copyright Act resulted in not only a monopoly of the copyrighted work, but also the system upon which the work was based.¹⁶⁸

The plaintiff had claimed that through his copyright he had secured the exclusive right to use the bookkeeping system that was suggested in his book, primarily because no one else could use the system without using similar ruled lines and headings explained by the system. The Court did not discuss the defendant's forms that were, in fact, not substantially similar to the plaintiff's, but instead stated that when the process the book taught "cannot be used without employing the methods and diagrams used to illustrate the book, or such as are similar to them, such methods and diagrams are to be considered as necessary incidents to the art, and given . . . to the public."¹⁶⁹ If copyright protection were granted to the defendant's bookkeeping forms, the effect would be to grant a monopoly in the underlying art itself. Since monopoly status was only to be granted under patent law, it would not be proper for copyright protection to result in the exclusive right to use the system. The diagrams were not like other works of explanatory art, but were given to the public "for the purpose of practical application."¹⁷⁰

166. 101 U.S. 99 (1879).

167. See also *American Inst. of Architects v Fenichel*, 41 F. Supp. 146, 147 (S.D.N.Y. 1941)(with respect to forms to be used in the preparation of a contract, the court stated that they were not read "as literature; their sole value is in their usability").

168. For a similar formulation of the question in these functional works cases, see M. NIMMER, *supra* note 97, at § 2.18[A].

169. *Baker v. Selden*, 101 U.S. 99, 103 (1879).

170. *Id.* Although the *Baker* case dealt with copying for explanation of the plaintiff's bookkeeping method, other cases have extended the doctrine to cover not only explanation but also use of the plaintiff's work. See *American Institute of Architects v. Fenichel*, 41 F. Supp. 146 (S.D.N.Y. 1941)(verbatim copying for use of a contract permissible). Furthermore, the Supreme Court has implied that the *Baker v. Selden* distinction between copying for explanation and copying for use will no longer be followed. *Mazer v. Stein*, 347 U.S. 201 (1954).

Some cases have extended the doctrine of *Baker v. Selden*. For example, in *Morrissey v. Proctor & Gamble Co.*,¹⁷¹ the plaintiff had developed a set of rules for a sweepstakes. Although the defendant had copied almost verbatim one of the sweepstakes rules, the court found in favor of the defendant. The court stated:

When the . . . subject matter is very narrow, so that the "topic necessarily requires" if not only one form of expression, at best only a limited number, to [grant copyright protection] would mean that a party . . . by copyrighting a mere handful of forms, could exhaust all possibilities of future use of the substance.¹⁷²

Thus, where there is only a limited number of forms of expression possible for specific ideas, some courts have extended the doctrine of *Baker v. Selden* to hold that copyright does not extend to the subject matter at all.¹⁷³ In such cases, the plaintiff cannot even complain if the defendant copies the work verbatim.

The doctrine of *Baker v. Selden* has been raised in cases involving copyright protection for games.¹⁷⁴ In these cases, defendants attempt to argue that the system or method of playing a game cannot be separated from that game's instructions or game board.¹⁷⁵ However, such arguments have been unsuccessful in most cases.¹⁷⁶ Although there is no copyright protection for the system or manner of playing a game, some limited copyright protection is available. For example, the design of game boards may be protected as pictorial or graphic works.¹⁷⁷ In fact, even the instructions for playing a game may be protected so

171. 379 F.2d 675 (1st Cir. 1967).

172. *Id.* at 678.

173. See also *Herbert Rosenthal Jewelry Corp. v. Kalpakian*, 446 F.2d 738 (9th Cir. 1971)(defendant's jeweled bee pin did not infringe plaintiff's copyright in a jeweled bee pin because the pin itself was the idea that defendants were free to copy).

174. See e.g., *Chamberlin v. Uris Sales Corp.*, 56 F. Supp. 987 (S.D.N.Y. 1944), *aff'd*, 150 F.2d 512 (2d Cir. 1945)(rules and layout of game).

In addition to board games, copyrights protect video games as audiovisual works. See, e.g., *Midway Mfg. Co. v. Artic Int'l, Inc.*, 704 F.2d 1009 (7th Cir. 1983), *cert. denied*, 464 U.S. 823 (1984).

175. See *Selchow & Righter Co. v. Goldex Corp.*, 612 F. Supp. 19 (S.D. Fla. 1985); *Chamberlin v. Uris Sales Corp.*, 150 F.2d 512 (2d Cir. 1945); *Meccano, Ltd. v. Wagner*, 234 F. 912 (S.D. Ohio 1916). Cf. *Landsberg v. Scrabble Crossword Game Players, Inc.*, 736 F.2d 485 (9th Cir. 1984)(instructions for playing a game unprotected because there were only a limited number of ways to express the instructions; to prohibit copying would make it possible to obtain a monopoly on the system to which the instructions pertained).

176. See, e.g., *Chamberlin v. Uris Sales Corp.*, 150 F.2d 512 (2d Cir. 1945). Cf. *Landsberg v. Scrabble Crossword Game Players, Inc.*, 736 F.2d 485 (9th Cir. 1984).

177. See *Selchow & Righter Co. v. Goldex Corp.*, 612 F. Supp. 19 (S.D. Fla. 1985). In addition to the boards for games, copyrights have been routinely granted and upheld for the screen displays of video games. See, e.g., *Stern Electronics, Inc. v. Kaufman*, 669 F.2d 852 (2d Cir. 1982); *Nintendo of America, Inc. v. Elcon Industries, Inc.*, 564 F. Supp. 937 (E.D. Mich. 1982).

that literal or closely paraphrased copying would constitute an infringement.¹⁷⁸

As with games in which the instructions and board are incidental to playing the game, a test is incidental to measuring underlying constructs such as intelligence or personality. Because of the functional nature of educational and psychological tests, the *Baker v. Selden* doctrine could be applicable.

Although neither litigants nor courts have specifically labeled educational or psychological tests as functional works, some of the arguments in these cases are consistent with the issues raised by granting copyright protection to functional works.¹⁷⁹ In *Rubin*, the defendant argued that psychological tests should not receive copyright protection because to give copyright protection to such tests would grant the authors a monopoly over the theories on which the tests are based.¹⁸⁰ Testing the underlying theories may be viewed as part of the function of the tests. However, the *Rubin* court rejected this argument. The court stated that there were "an infinite number of ways of stating [the plaintiff's] theory and an infinite number of questions which may be asked in order to find out whether [people] have the characteristics to which the theory refers."¹⁸¹

In these functional work cases, if a defendant can, in fact, come up with a written expression that is different from the plaintiff's expression, why should the defendant be permitted to simply copy the plaintiff's work? Many commentators agree that the doctrine should not be used to justify the denial of copyright protection to educational tests, or in fact, to any work.¹⁸² Nimmer, for example, argues that the doctrine is unjustified "if for no other reason than that it is factually erroneous to conclude that there is any system or method which can be performed by the use of only one particular form of written expression."¹⁸³ Even in *Baker*, the United States Supreme Court recognized the defendants' forms were not substantially similar to the plaintiff's.¹⁸⁴ Similarly, in *Rubin*,¹⁸⁵ the court acknowledged that there were other ways to express the underlying constructs of love. Ac-

178. See *Gelles-Widmer Co. v. Milton Bradley Co.*, 313 F.2d 143 (7th Cir. 1963); *Meccano, Ltd. v. Wagner*, 234 F. 912 (S.D. Ohio 1916).

179. Arguably, the defendants in *Applied Innovations v. Regents of the Univ. of Minn.*, 876 F.2d 626 (8th Cir. 1989), tried to raise that argument when they argued that the "test statements and testing data cannot be copyrighted because they are facts or methods or processes for discovering facts." *Id.* at 636. The court rejected that argument at the outset.

180. See *Rubin v. Boston Magazine Co.*, 645 F.2d 80, 83 (1st Cir. 1981).

181. *Id.* at 83.

182. See M. NIMMER, *supra* note 97, at § 2.18[C].

183. *Id.* See also *Educational Testing Serv. v. Katzman*, 793 F.2d 533, 539 (3d Cir. 1986), discussed *infra* text accompanying notes 195-97.

184. *Baker v. Selden*, 101 U.S. 99, 100 (1879).

185. See *supra* text accompanying notes 153-58 for a discussion of the facts of this case.

knowledging the diverse expressions possible, the *Rubin* court granted protection to the plaintiff's *particular* expression.

Although technically it might be appropriate to consider the tests as functional works, a successful application of the *Baker* doctrine would be inappropriate primarily because of the potential for the use of different forms of tests and test questions to measure underlying constructs. Particularly if a defendant tries to create a competing test, no interest is served by allowing the defendant to copy questions from the plaintiff. In the scientific community, there is already the problem of insufficient "good" tests.¹⁸⁶ The scientific community would like to see multiple tests made available that can be used to measure the same constructs. Scientific advances can be made by having individuals create new and different tests rather than copying the old test questions. As one of the purposes of granting copyright protection to authors was "to promote the Progress of Science,"¹⁸⁷ it serves no purpose to let a second test maker copy the original test. If a second author was allowed to copy the first author's work and simply build upon it, there would be little incentive for the first author to create the test. If the first author is not able to reap the benefit of his or her extensive creative and intellectual effort in selecting items and standardizing the instrument, that author may not even go to the trouble to create this first test.

A similar analysis would hold true in the case of review course preparers who explain how to take the original test.¹⁸⁸ In review materials, for example, a defendant can give examples of the types of questions that would be included on the test without having to copy the plaintiff's wording or even the precise choice of questions. In fact, if a review course were to use the precise questions that would be found on the test, the plaintiff's ability to continue to use the test as a marketable, functional work would be greatly reduced if not com-

186. There are a handful of tests that are used repeatedly in education, clinical practice, and research. See *supra* text accompanying note 92.

187. U.S. CONST. art. I, § 8, cl. 8.

188. A similar analysis might apply in the case of an author who wrote a text book about test construction and included information about how the test was constructed or standardized and used examples of test questions. See *supra* note 9 and accompanying text. See also *infra* notes 238 and 240.

Interestingly enough, the original holding in *Baker v. Selden* suggested that copying could be done to *use* the art (as in the case of researchers using the actual test for a given purpose) but not done when the use was for explanatory purposes. *Baker v. Selden*, 101 U.S. 99, 103 (1879). Thus, even if one wanted to view the tests as functional works in which there was no other way to test the constructs or only limited ways to test them, under the original holding, the review course preparer would still be liable for infringement. However, the Court indicated that no longer would there be a distinction between use and explanation in *Mazer v. Stein*, 347 U.S. 201 (1954); thus, both a review course preparer and a researcher may be liable for infringement.

pletely eliminated. Tests like the MCAT reuse questions from previous tests; thus, the fairness of the test would be called into question if the questions were disclosed to some people prior to administration of the test. The questions for these standardized tests are considered well-guarded secrets, and to give some students who can afford to buy a test preparation book or take a review course an advantage over students who are unable to afford such review materials would cast doubt on the validity of the test.

Because multiple expressions for testing the constructs of interest are possible, such defendants should not be able to appropriate a plaintiff's test or significant numbers of questions. If, however, such defendants do copy a plaintiff's work, a fair use defense may be raised.

If instead, another researcher wants to test the reliability or validity of the test or correlate the test with other instruments or behaviors, the researcher would have to copy the test as it is and administer it to research subjects. Unlike a competitive test maker or review course preparer, this researcher will need to use the actual test verbatim in order to perform the desired task. As the protected expression has been directly copied in this context, there seems no question that, absent permission to use the test, this is infringement. However, this context is different from the above situations in that the research may be "to promote the Progress of Science;"¹⁸⁹ such research may provide important scientific information about *that* test.¹⁹⁰ Whether such use is permissible will be discussed in the context of the fair use defense to infringement in Part V.

D. Individual Items and the Doctrine of Merger

Although the doctrine of merger is said to be the result of *Baker v. Selden*, this doctrine is not limited to functional works. Often it is simply a variation of the idea-expression dichotomy.¹⁹¹ When the work's underlying ideas can be expressed effectively in only a limited number of ways, ideas and expression are said to "merge." For example, one court ruled that a plaintiff's pin — a bee covered with semiprecious stones — was not copyrightable since a jeweled bee pin was the idea.¹⁹² The expression of the pin in the form of a bee was indistinguishable from the underlying idea.¹⁹³

189. U.S. CONST. art I, § 8, cl. 8.

190. Unlike the competitor, these researchers may provide additional information that may increase the market for a particular test, *i.e.*, a researcher may demonstrate that the California Psychological Inventory, see *supra* note 9, is a good predictor of job performance.

191. Recall that only the expression of an idea can receive copyright protection. See *supra* text accompanying note 119.

192. *Herbert Rosenthal Jewelry Corp. v. Kalpakian*, 446 F.2d 738 (9th Cir. 1971).

193. Another example of the merger doctrine can be found in *Harper & Row, Publishers, Inc. v. Nation Enter.*, 471 U.S. 539, 547 (1985), in which the defendant had

Of course, it is critical what litigants and courts decide is the "idea."¹⁹⁴ If the idea is the measurement of intelligence, aptitude for math, or personality traits, the analysis will be what was discussed above in the case of the functional test whose goal it is to measure intelligence, aptitude for math, or personality traits. However, if the litigants choose to focus on what ideas are embodied in *each* question, the analysis will be a bit different. The individual questions may measure some particular knowledge or trait such as the ability to add the numbers 2 and 3, or whether a person considers himself or herself to be friendly. In this context, a defendant would argue that there would be limited ways in which questions measuring these specific characteristics could be worded.

In *Educational Testing Services v. Katzman*,¹⁹⁵ the defendants operated a review course to prepare students to take the SAT that is administered by the Educational Testing Service ("ETS"). The defendants used a practice test that was copied or paraphrased from a test that was stolen from ETS. The defendants argued that they should not be held liable for copyright infringement because ETS's test questions should not receive copyright protection. The defendants argued that the principle of merger between idea and expression was applicable because the idea or subject of the individual questions could only be expressed in a limited number of ways. The court rejected that argument. The court was unpersuaded that the SAT questions represented the only means of expressing the ideas underlying the questions. For example, the court stated that there were many ways students could be tested on their knowledge of square roots or dangling participles. The court stated that ETS could not appropriate concepts such as rules of punctuation, analogies, vocabulary, or other elements of English composition. However, ETS could devise questions designed to test these concepts and secure valid copyrights on

taken portions of President Ford's unpublished manuscript regarding important political issues, such as Nixon's pardon, to include in a review of the forthcoming memoirs. The court stated that although there may be many ways to express the idea that President Nixon is worthy of a pardon, there may be only one way of adequately conveying President Ford's evaluation of Nixon's worthiness, that is, by *quoting* President Ford.

This case might lead one to argue that defendants engaged in review course preparation as a commercial enterprise might be justified in copying a plaintiff's questions. Given that students are trying to review for *the* SAT or MCAT, they may not want to review for questions that are only *like* the questions on the SAT or MCAT. However, there is no guarantee that the identical questions taken from past tests and distributed in the test preparation course would appear on the actual examination that the student would be taking. In fact, ETS, for example, will use new questions that it has created for the new test that are only *like* the old questions. For this reason, the defendant's original questions should be as helpful as any of the actual questions for which plaintiffs had valid copyrights.

194. P. GOLDSTEIN, *supra* note 161, at § 2.3.2.

195. 793 F.2d 533 (3d Cir. 1986).

these questions.¹⁹⁶ The court concluded that, since there were other methods to express these ideas that were not foreclosed to others, there was no merger.¹⁹⁷

If a person wants to write a question to test a student's knowledge of subtraction, any number of possible questions come to mind. A test maker or review course preparer could use whole numbers, fractions, or decimals, and within those choices use any numbers to subtract. For example, a test maker could ask, "What is five minus two?" or "Subtract two from five" or numerically write out "What is 5-2?" There are *at least* three ways to reflect the same idea. To allow a defendant to copy a plaintiff's choice of wording in either the review course or the competitive testing situation does not seem justified. However, the researcher who is testing the reliability or validity of a particular test or is trying to correlate that test with other measures or behaviors may be justified in copying the plaintiff's test questions verbatim, not because there may be limited ways to ask these questions, but because the purpose of the use is different. These uses will be discussed in Part V in the context of the fair use defense.¹⁹⁸

E. Conclusions: What Can A Second User Do?

As has been discussed, there is no basis upon which to deny copyright protection to a test maker's expression of a test or its individual questions. For example, a test is not a discovery which deserves less protection. In addition, although a test may be considered a functional work because it can be used to measure human characteristics, there is no reason to suggest that there are limited ways to test the same theories or constructs underlying either the test as a whole or the individual questions.

Although the test may be composed of questions based on scientific facts, the particular form of expression of those facts and the choice of those particular facts should receive copyright protection. The choice of questions and how they are worded involves a great deal of thought and creative effort, and thus, deserves a broad scope of protection.

Given that tests should receive a broad scope of copyright protection, what does that *practically* mean to a competing test maker or review course preparer who is worried about infringing upon the original test? From the above analysis, a verbatim copying would constitute infringement. However, what about paraphrasing the wording of a plaintiff's questions? Suppose a test maker writes a question that reads, "Multiply 25 and 10," and a defendant paraphrases that ques-

196. *Id.* at 540.

197. *Id.* at 539.

198. See *infra* notes 256-73 and accompanying text.

tion reading, "What is 25×10 ?" Is such paraphrasing permissible?¹⁹⁹

Although the second test maker or review course preparer has not copied the question verbatim, he or she has appropriated the test maker's choice of content. If the second user wants to write a question to test respondents' ability to multiply two digit numbers, why should the defendant be able to take the test maker's choice of content without having to make any independent choices about what to include in the questions? As has been discussed, the intellectual and creative labor involved in choosing the content of items is what should be protected. What cannot be protected are the ideas that underly the questions. Thus, a review course preparer or a competitive test maker could see that an important concept to test is the ability to multiply two-digit numbers and develop questions on that basis. Particularly in the case of the competitive test maker, the difference is that if one uses the underlying idea but changes the content, such a change will effect the standardization and norming of those items. Rather than appropriate all of the test maker's labor, the competitor will still have a great deal of work to do in order to demonstrate the reliability and validity of his or her test.

For a review course preparer, it is very important that the ideas underlying the questions not be given protection. The review course preparer needs to be able to use the ideas underlying the test, such as the construct of multiplying two-digit numbers, in order to prepare students for what lies ahead on the examination. However, there is no reason to let him or her copy the expression of the questions.

A verbatim copying, as discussed with respect to the competitive test maker or review course preparer, is infringement. However, should a verbatim copying under all conditions be prohibited? For example, a critical researcher, who is testing the reliability or validity of a plaintiff's test or who is trying to correlate a plaintiff's test with another instrument or behavior, may want to duplicate the test and administer it to research subjects. Such research activities are not uncommon. Should the researcher be able to copy the test and administer it to research subjects? Absent permission to use the test, which in many cases would require payment for copies of the test, copying

199. In *Educational Testing Serv. v. Katzman*, 793 F.2d 533, 541 (3rd Cir. 1986), discussed *supra* text accompanying notes 195-97, even a close paraphrasing by simply substituting numbers in the plaintiff's chosen form of the question constituted infringement. Thus, if a plaintiff's test question reads "What is 25×30 ?" there is also the possibility that a court would consider such a question that merely changes the numbers to read, "What is 35×40 ?" to still be an infringement. However, such paraphrasing is less objectionable because what the defendant has copied is the idea of multiplying two-digit numbers, and such idea is not protected. Unless the form of the questions is protected, such an apparent paraphrasing may not constitute infringement. *Katzman* suggested that the form of the questions is not protected. *Id.* at 542.

would constitute infringement. Clearly, the researcher has appropriated both the ideas that the test is testing, as well as the expression of those ideas. Unlike the previous two situations, however, this research use may be justified because of the contributions to science.

To summarize, the scope of protection for tests should be broad. Verbatim copying and close paraphrasing should be impermissible in the competitive testing and review course situations. However, under research circumstances, perhaps even verbatim copying may be justified under a fair use defense. This defense is discussed below.

V. THE DEFENSE OF FAIR USE

Courts have recognized that certain uses which have infringed upon a copyrighted work are nevertheless within the realm of "fair use." Fair use can be defined as "'a privilege in others than the owner of a copyright to use the copyrighted material in a reasonable manner without his [or her] consent, notwithstanding the monopoly granted to the owner by the copyright.'"²⁰⁰

The Copyright Act protects fair use "for purposes such as criticism, comment, news reporting, teaching (including multiple copies for classroom use), scholarship, or research. . . ."²⁰¹ The Copyright Act specifies four factors for courts to consider in determining whether a use is fair:

- (1) the purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes;
- (2) the nature of the copyrighted work;
- (3) the amount and substantiality of the portion used in relation to the copyrighted work as a whole; and
- (4) the effect of the use upon the potential market for or value of the copyrighted work.²⁰²

Courts have been divided on the relative weight to attach to each of the four factors.²⁰³ Some courts have placed great emphasis on the first factor,²⁰⁴ while others have emphasized the fourth factor.²⁰⁵ These discrepant emphases, however, rarely affect the outcome of a particular case because the four factors overlap.²⁰⁶ For instance, the

200. P. GOLDSTEIN, 2 COPYRIGHT: PRINCIPLES, LAW AND PRACTICE § 10.1 (1989)(quoting, H. BALL, THE LAW OF COPYRIGHT AND LITERARY PROPERTY 260 (1944)).

201. 17 U.S.C. § 107 (1988). See *Williams & Wilkins Co. v. United States*, 487 F.2d 1345 (Ct. Cl. 1973)(research); *Italian Book Corp. v. American Broadcasting Co.*, 458 F. Supp. 65 (S.D.N.Y. 1978)(news reporting); *Time, Inc. v. Bernard Geis Ass'n*, 293 F. Supp. 130 (S.D.N.Y. 1968)(scholarship).

202. 17 U.S.C. § 107 (1988).

203. P. GOLDSTEIN, *supra* note 200, at § 10.2.2.

204. See *Sony Corp. of America v. Universal City Studios, Inc.*, 464 U.S. 417, 448-50 (1984).

205. See *Harper & Row, Publishers, Inc. v. Nation Enter.*, 471 U.S. 539, 566 (1985).

206. P. GOLDSTEIN, *supra* note 200, at § 10.2.2.

fact that the defendant's purpose was to overtake the plaintiff's market bears on both the first and fourth factors.²⁰⁷ As will be discussed, these two factors are important in the context of educational and psychological tests, particularly because of the value of the tests as selection tools for higher education or as diagnostic measures, respectively.

In the context of educational and psychological tests, three types of infringement will be discussed. The majority of cases have dealt with infringers who have established a review course to teach people how to take plaintiffs' tests. However, there is a second type of possible infringement. A defendant could copy a plaintiff's test to use as a competing test. For example, if a defendant wanted to establish a second competing test for admission to medical schools, the defendant might copy MCAT questions. Further, there is at least one other type of infringement possible. Another researcher might seek to challenge the reliability or validity of the creator's test, or he or she might try to correlate the original test with other instruments or behaviors. In this case, the second researcher would be copying the test verbatim to administer to research subjects. These three possible types of infringement will be addressed separately, as the discussion of the four factors to be considered in making a fair use defense will be different in each of these cases.

A. The Defendant's Use For Explanation or Teaching Purposes

The fact that a defendant's use resembles one of the possible examples listed in the Copyright Act such as teaching is no guarantee that a court will hold that the use is a fair use.²⁰⁸ In *Association of American Medical Colleges v. Mikaelian*,²⁰⁹ the defendants argued that using the plaintiff's questions to help students prepare to take the MCAT was a fair use. However, the court disagreed. The court stated that the defendants had not demonstrated that their use fell within one of the activities enumerated in section 107. The court refused to accept defendants' contention that they were engaged in "teaching."²¹⁰ Although the defendants were engaged in a test preparation course, the court noted that students did not receive a degree, did not become certified in anything after taking the course, and could not use the course as a prerequisite for further education and training in any educational or vocational endeavor. The court stated:

In determining whether the given use of copyright is for "educational" pur-

207. *Id.* See *Harper & Row, Publishers, Inc. v. Nation Enters.*, 471 U.S. 539, 562 (1985); *Sony Corp. of America v. Universal City Studios, Inc.*, 464 U.S. 417, 448-51 (1984).

208. P. GOLDSTEIN, *supra* note 200, at § 10.2.1.1.

209. 571 F. Supp. 144 (E.D. Pa. 1983), *aff'd*, 734 F.2d 3 (3d Cir. 1984). Additional facts about *Mikaelian* are discussed at *supra* text accompanying notes 130-32.

210. *Association of Am. Medical Colleges v. Mikaelian*, 571 F. Supp. 144, 152 (E.D. Pa. 1983), *aff'd*, 734 F.2d 3 (3d Cir. 1984).

poses within the meaning of the statute, the courts have placed particular emphasis on whether the distribution of the copyrighted work by the alleged infringer "would serve the public interest in the free dissemination of information and whether their preparation requires some use of prior materials dealing with the same subject matter. [The defendants] do not freely disseminate the MCAT test questions they have copied. The questions are given only to those who pay . . . to enroll in [the defendants'] course. The defendants have not sought to add their acquired knowledge of MCAT question content to the public realm."²¹¹

Even though the court believed the defendant's use was not a teaching use within the meaning of the statute, the court proceeded to examine the four factors outlined in the statute that would permit such a use by the defendant. First, the court considered the purpose and character of the use, and in so doing considered whether the use was of a commercial nature²¹² or was for nonprofit educational purposes.²¹³ While commercial use is almost always disfavored, it is never conclusive.²¹⁴ However, in this case, the court placed a great amount of emphasis on this factor. The court stated that profit-making institutions should be capable of negotiating and paying a fair fee to the copyright holder for the use of the protected work.

Second, the court considered the nature of the copyrighted work.²¹⁵ Courts generally focus on whether the copyrighted work is factual or creative,²¹⁶ and on whether it is published or unpublished.²¹⁷ With factual works, defendants usually have more freedom to use portions of the plaintiff's works than if the work is purely fictional.²¹⁸ However, as discussed in the context of whether the works are original works of authorship because they are factually based, courts are reluctant to allow the defendant to copy verbatim or to

211. *Id.* (citations omitted).

212. In *Sony Corp. of America v. Universal City Studios, Inc.*, 464 U.S. 417, 449 (1984), the Court stated that making copies of a copyrighted work for a commercial or profit-making purpose would be presumptively unfair.

213. However, even if a nonprofit corporation is making use of copyrighted works, this has not been sufficient to sustain a fair use defense. *See e.g., Marcus v. Rowley*, 695 F.2d 1171, 1175 (9th Cir. 1983) ("a finding of a nonprofit educational purpose does not automatically compel a finding of fair use"); *Encyclopedia Britannica Educ. Corp. v. Crooks*, 447 F. Supp. 243 (W.D.N.Y. 1978) (nonprofit corporation was videotaping copyrighted films, making copies, and distributing them to public schools; court found this activity was not a fair use).

214. *See, e.g., Consumers Union of United States, Inc. v. General Signal Corp.*, 724 F.2d 1044, 1049 (2d Cir. 1983), *cert. denied*, 469 U.S. 823 (1984); *Triangle Publications, Inc. v. Knight-Ridder Newspapers, Inc.*, 626 F.2d 1171 (5th Cir. 1980).

215. *Association of Am. Medical Colleges v. Mikaelian*, 571 F. Supp. 144, 153 (E.D. Pa. 1983), *aff'd*, 734 F.2d 3 (3d Cir. 1984).

216. *Cf. Dow Jones & Co. v. Board of Trade*, 546 F. Supp. 113, 120 (S.D.N.Y. 1982) (factual works should be most conducive to fair use).

217. *See Harper & Row, Publishers, Inc. v. Nation Enter.*, 471 U.S. 539 (1985) (unpublished memoirs of President Ford).

218. P. GOLDSTEIN, *supra* note 200, at § 10.2.2.2.

closely paraphrase factual works that have a great deal of creative effort expended in the selection and arrangement of the facts.²¹⁹ The *Mikaelian* court described the MCAT test questions as original works that are "painstakingly drafted and tested" by AAMC and "carefully administered under strict security conditions."²²⁰ Thus, such a use was improper, particularly in light of the verbatim replication of the plaintiff's questions.

Furthermore, the fact that a work has technically been published within the meaning of the Copyright Act does not necessarily mean that it will be fully exposed to the fair use defense. For example, in *Mikaelian*, the court protected the plaintiff's secure test questions against appropriation²²¹ despite the fact that they were used on a national scale because the purpose of copyrighting the questions was to prevent their use as teaching aids, "since such use would confer an unfair advantage to those taking a test preparation course."²²² The

219. See *supra* text accompanying notes 133-34.

220. Association of Am. Medical Colleges v. Mikaelian, 571 F. Supp. 144, 153 (E.D. Pa. 1983), *aff'd*, 734 F.2d 3 (3d Cir. 1984).

221. Copyright is possible in "secure tests." Just because samples of the test are sent to the Register of Copyrights and have been administered to test takers does not mean that they have been "published," and thus, subject to public disclosure. 37 C.F.R. § 202.20(c)(2)(vi).

For example, in Association of Am. Medical Colleges v. Carey, DCNNY, No. 79-CV-730, 1/12/90, *discussed in* 39 PAT. TRADEMARK & COPYRIGHT J. 223 (Issue No. 965)(Westlaw Data Base, January 25, 1990), the U.S. District Court for the Northern District of New York held that a New York statute requiring disclosure of the MCAT questions was preempted by the Copyright Act. The New York "Truth-in-Testing" Act applied to post-secondary and professional school admission tests administered in New York. The law required disclosure of the MCAT test questions, answers, answer sheets, and related research reports. The state would make the disclosed MCAT materials "public records" under New York's Freedom of Information Act. Thus, these materials would have been subjected to reproduction and disclosure to the public.

The state argued that disclosure was necessary because the AAMC exercised "a monopoly over the screening process which determines the select few who are admitted to medical school." The state maintained that the disclosure requirement was a legitimate exercise of police power that would serve the public interest in the validity and objectivity of the test.

However, AAMC maintained that disclosure was especially important for the MCAT because the MCAT questions were "secure test" questions. The court agreed, noting that under copyright law, owners are permitted to keep their work secret. The court stated that the single most important element in a fair use analysis was the effect of the use on the potential market for or value of the copyrighted work, and this disclosure requirement interfered with the value of the questions since the questions would no longer be able to be reused on subsequent examinations. The public disclosure would render the materials worthless to the copyright owner. Thus, the court found that the disclosure requirements did not constitute a fair use of the copyrighted material.

222. Association of Am. Medical Colleges v. Mikaelian, 571 F. Supp. 144, 153 (E.D. Pa. 1983), *aff'd*, 734 F.2d 3 (3d Cir. 1984).

Although one could consider the possibility of a review course being given for

court found that the defendant's use was not proper in this context.

The third fair use factor the *Mikaelian* court considered was the amount and substantiality of the portion of the copyrighted work used in relation to the copyrighted work as a whole. The amount²²³ that the defendant copied from the copyrighted work, while not relevant to the question of infringement, was directly relevant to the question of fair use.²²⁴ The more copied, the less likely that the fair use exception would be applicable since there would be no reason that the defendant should not be forced to negotiate a license from the copyright holder or get permission to use the test questions.²²⁵ In *Mikaelian*, 90% of the defendant's questions were taken from the plaintiff's test.²²⁶ Such an extensive copying was not considered fair use.²²⁷

Finally, the court considered the effect of the use upon the potential market for or value of the copyrighted work. Courts will often find there is an injurious effect when a defendant's work competes directly with a plaintiff's.²²⁸ However, where the injury is more indirect, as in cases where a defendant has used the copyrighted work in a way that a plaintiff has not used the work or licensed others to use the work, courts have had more difficulty in determining the extent of the injury to a plaintiff's market for or value of the copyrighted work. The cases in which defendants operate review courses for a plaintiff's test are examples of this latter situation as a plaintiff may not offer its own review course.²²⁹

a test that is readily available, this is unlikely. The tests that provoke people to offer review courses are those that cost money, whose outcome matters a great deal to the persons taking them, and that are kept under strict security conditions. For example, the fee for the SAT in 1990 was \$14.50, if the registration was made in advance. If a person came in on the day of the test, the fee was \$30.00. This fee did not include some additional services such as additional score reports to colleges or scholarship programs. SAT BULLETIN, *supra* note 1, at 3. Nevertheless, even if a work is already on the market, the review course would certainly be administered for profit. Thus, in either case, money would be gained by a defendant at a plaintiff's expense.

223. The amount taken is not merely a quantitative measure, but is also a qualitative measure. See *Harper & Row, Publishers, Inc. v. Nation Enter.*, 471 U.S. 539, 565 (1985) (300 of the most important words out of a total of 200,000 words were taken).

224. P. GOLDSTEIN, *supra* note 200, at § 10.2.2.3.

225. *Id.*

226. *Association of Am. Medical Colleges v. Mikaelian*, 571 F. Supp. 144, 153 (E.D. Pa. 1983), *aff'd*, 734 F.2d 3 (3d Cir. 1984).

227. *Id.*

228. P. GOLDSTEIN, *supra* note 200, at § 10.2.2.4. See, e.g., *Wainwright Sec. Inc., v. Wall Street Transcript Corp.*, 558 F.2d 91, 96-97 (2d Cir. 1977) (defendant abstracted and reproduced plaintiff's investment research reports in its newspaper and advertised abstracts as one of paper's important features; the effect was to negate the demand for the original work).

229. However, some of the achievement test makers have created review books for people to use in preparing for these tests. See, e.g., *THE COLLEGE ENTRANCE EX-*

Nevertheless, where competitors offer review courses that might disclose questions that could appear on the test, or in any event are copying questions that they could just as easily develop on their own, the value of the copyrighted test itself is substantially diminished. In fact, even tests that are published and not maintained under security conditions were not intended to be "practiced." Review courses might lead others to stop using these tests and look for other tests that are less accessible to the public and about whom test-taking strategies have not been devised.

The value of tests as selection tools for college or employment, or diagnostic tools to identify mental illness depends upon the fairness surrounding their administration. If some people have easy access to test questions, the results will be skewed. This is precisely the determination that the *Mikaelian* court made with regard to the defendant's use of the MCAT questions. Such use would make the copyrighted materials worthless to the copyright holder. The court concluded: "A use of the protected work which destroys the value of the protected work to the copyright holder can hardly be considered fair."²³⁰

The courts that have considered a defendant's use of a plaintiff's test questions in review courses to prepare for the tests have come to the correct conclusion regarding the fair use defense. These cases are markedly different from a teacher using sample test questions in a classroom to give students an idea of what to expect on the SAT, for example.²³¹ In these cases, the defendants have taken a plaintiff's

AMINATION BOARD, 10 SAT's 5 (3d ed. 1988)(*actual* and complete SAT's; the College Board makes public five SAT's each year).

If a test maker wanted to develop review materials for his or her test, that test maker should have the first opportunity to create those materials as a derivative work of the test. See *infra* text accompanying notes 232-35.

230. Association of Am. Medical Colleges v. Mikaelian, 571 F. Supp. 144, 153 (E.D. Pa. 1983), *aff'd*, 734 F.2d 3 (3d Cir. 1984). See also Educational Testing Serv. v. Katzman, 793 F.2d 533, 543 (3d Cir. 1986)(identical analysis was used since the Court relied on *Mikaelian*).
231. Educational uses, particularly classroom uses, are mentioned parenthetically in the first sentence to 17 U.S.C. § 107 (1988) as a prime example of a fair use. 17 U.S.C. § 504(c)(2)(1988) also contains another safeguard which protects innocent teachers and other nonprofit users of copyrighted material from liability for infringement.

But see *Encyclopaedia Britannica Educ. Corp. v. Crooks*, 447 F. Supp. 243 (W.D.N.Y. 1978)(the infringing activity did not involve an isolated instance of a teacher copying copyrighted material for classroom use but concerned a highly organized and systematic program for reproducing the plaintiff's copyrighted work on a large scale). See also *Association of Am. Medical Colleges v. Mikaelian*, 571 F. Supp. 144, 153 (E.D. Pa. 1983), *aff'd*, 734 F.2d 3 (3d Cir. 1984)(citing *Crooks*, the court stated that the defendant had "not copied a portion of a textbook to illustrate a problem for its students; it has made wholesale use of another organization's copyrighted materials. . . . [The defendant] did not assemble the copyrighted materials and offer the [review] course to advance scientific knowl-

work and have found a collateral, profit-making use for the materials. One of the exclusive rights granted to copyright holders under the Copyright Act is the exclusive right to prepare "derivative works based upon the copyrighted work."²³² A derivative work is a "work based upon one or more preexisting works, such as a translation, . . . abridgment, condensation, or any other form in which a work may be recast, transformed, or adapted."²³³ Some of the educational test makers have chosen to prepare derivative works such as review books to help students prepare for the examinations.²³⁴ In these cases, if the copyright holders choose to give a review course for their tests, that should be *their* prerogative.²³⁵ One of the reasons many plaintiffs have not had such review courses is because they do not want to give students an unfair advantage on the test by giving early access to the questions to those students who are able to pay for the review course. Tests such as the MCAT are prepared and administered under security conditions so that no one will be able to get copies, and thus, achieve an unfair advantage over other students who were not able to secure an advance copy of the test questions. Generally, when a student registers for the tests, they are given a study booklet prepared by the copyright holder that has examples of the type of questions likely to be found on the test.²³⁶ Every registrant receives a booklet. If each student receives only that booklet, the test is *per se* fair, because at that point the only differences between students theoretically is their

edge among . . . undergraduates. He sought and continued to seek income through the use of AAMC's copyrighted materials").

232. 17 U.S.C. § 106(2)(1988).

233. *Id.* at § 101.

234. For example, AAMC has chosen to prepare a book about the MCAT to help students prepare for the exam called the *MCAT Student Book*. This publication is only available directly from AAMC. MCAT ANNOUNCEMENT, *supra* note 2, at 5, 37.

235. With respect to the fourth fair use factor, courts often look to the potential market for the copyrighted work in determining the injury to the value of a plaintiff's work. See *Leo Feist, Inc. v. Song Parodies, Inc.*, 146 F.2d 400 (2d Cir. 1944)(defendants copied parodies of plaintiff's song lyrics and put them into their magazine; such use was not a fair one because plaintiff had granted licenses to certain publishers to use their song lyrics). Cf. *Berlin v. E.C. Publications, Inc.*, 219 F. Supp. 911 (S.D.N.Y. 1963), *aff'd*, 329 F.2d 541, *cert. denied*, 379 U.S. 822 (1964)(copying parodies of lyrics to be published in a humor magazine; court distinguished *Feist* on the basis of the type of magazine and the potential market affected). In these test cases, it is reasonable to think that the plaintiff could develop a market for review courses. Who better than the test maker to give a review for the particular test in question? Test makers who choose to create review materials will best be able to determine which questions will be reused, and thus, not include them in the review materials.

236. See, e.g., AMERICAN COLLEGE TESTING PROGRAM, PREPARING FOR THE ACT ASSESSMENT (October 1989)(includes test strategies and sample items)[hereinafter ACT ASSESSMENT].

respective differences in their knowledge bases or aptitudes.²³⁷ These differences are precisely the ones that these tests are supposed to be measuring.

Although these review courses and review books are most common in the context of educational tests, it is possible that someone might write a book or conduct a review course on how to prepare for certain psychological tests.²³⁸ Although this may seem implausible, if one considers the number of corporations that have begun to use personality tests as part of personnel selection,²³⁹ it becomes apparent that some employees might want to perform well on these tests in order to secure a job.²⁴⁰

The instructive value of explanatory materials regarding psychological tests is particularly important in the context of criminal matters, where defendants are often given various psychological tests to determine if they are mentally ill in preparation for an insanity or diminished capacity defense.²⁴¹ Arguably, an intelligent defendant could fake multiple personality symptoms, for example, based on their reading of textbooks describing such symptomology. What would prevent a defendant from learning how to take a psychological test that would help him or her put forth an insanity defense if such materials were available?

The point of this speculation is to emphasize that educational and

237. Of course, that is theoretically speaking since students may not look at the booklet equally.

238. Even if a researcher simply writes a book with a detailed explanation of what the test measures, how the scores are determined, and what some of the questions are, someone might obtain some advantage in taking the test by being exposed to some of the questions prior to the test. However, if the researcher does not include any of the specific questions, arguably such a use would be permissible because the researcher is "not giving anything away." In much the same way that book reviewers comment on an author's novel, someone could explain the purpose and use of the test without infringing on the copyright.

239. See *supra* text accompanying note 8.

240. In addition, tests such as the MMPI have a "faking scale" that alerts a psychologist that a client may be faking. See C. GOLDEN, CLINICAL INTERPRETATION OF OBJECTIVE PSYCHOLOGICAL TESTS 66-75 (1979); G. GROTH-MARNAT, HANDBOOK OF PSYCHOLOGICAL ASSESSMENT 271-73 (1984). However, if the client is aware of the scale, he or she could alter the responses to reduce the faking score, and thus, come up with a personality measure that would be "acceptable" to an employer. It becomes problematic that even without the specific questions being included in the description of such scales, some people might be able to circumvent the "faking" scales by merely being aware of them. However, as no specific expression of the test is appropriated, it would arguably violate a researcher's first amendment right to comment on the construction of the test. For a discussion of first amendment issues involved in prohibiting copying of others' works, see M. NIMMER, *supra* note 97, at § 1.10.

241. See P. WISE, *supra* note 8, at 114. Psychological tests are also used in competency to stand trial determinations, child custody cases, and tort cases where the issue is the presence of mental deficits following an accident. *Id.* at 114-16.

psychological tests are not intended to be "practiced." They are intended to measure aptitude and personality "as is," without any coaching from the sidelines by people who want to write "how to" books or conduct review courses that include *the* questions that will appear on the test. The reliability and validity of the tests depends on the fact that people are not exposed to the test questions in advance; each test-taker sees the questions for the first time when he or she takes the test.²⁴²

B. The Defendant's Use for Testing Purposes

When a defendant copies test items to administer a competing test for profit, such a use is also not a fair use. In *Applied Innovations, Inc., v. Regents of the University of Minnesota*,²⁴³ the defendants had developed personal computer software to administer, score, and interpret the MMPI. The MMPI is a psychometric test used by medical and psychological professionals to make objective assessments of major personality characteristics such as depression and introversion.²⁴⁴ The MMPI is a "revolutionary development in the field of psychological testing."²⁴⁵ The test was developed upon the hypothesis that individuals who share a particular psychological symptom, personality trait, or characteristic would respond to certain groups of test statements in the same way and that each response to a particular test statement was indicative of a particular psychological symptom or personality trait. Test statements were administered to clinical patients and adult normals; the responses were compared; and the appropriate scoring process was developed.

The MMPI consists of 550 test statements that are short declarative sentences to which subjects answer "true," "false," or "cannot say." The test also has scale membership, correlations, and conversion tables for scoring. The responses to the questions can be scored by hand, but this process is time-consuming. The plaintiffs marketed a computer program and related products and services for computer scoring. The defendant's competing computer programs were at issue in the case.²⁴⁶

The court found infringement. The defense of fair use was not raised in this case on appeal. If the defense would have been raised, it would not have been successful. The defendant's use was clearly commercial in nature. Even though the work could be considered func-

242. This is particularly important because questions are reused on the MCAT. See *supra* notes 220-22 and accompanying text.

243. 876 F.2d 626 (8th Cir. 1989).

244. *Id.* at 628.

245. *Id.*

246. The defendant had several different programs. One included some test items in addition to scoring the items; the other merely scored items. *Id.*

tional,²⁴⁷ there are many ways to construct tests so that underlying personality traits can be tested. Furthermore, there was a great deal of creativity and demanding intellectual labor involved in constructing the test. Thus, there would be no reason to grant less protection to this test and to allow the defendant greater leeway to copy verbatim from the test. The amount taken from the work was substantial; the defendant had used all of the test questions, at least at some level, since the computer scored each question. Finally, the effect of the use upon the potential market for the plaintiff's own computer programs was obvious. For every scoring system the defendant sold, the plaintiff sold one less.²⁴⁸

In the above case, by copying the test, the defendants would have been in direct competition for administration and scoring of the plaintiff's test.²⁴⁹ Such a use would be presumptively unfair; it was directly competitive with the plaintiff's copyrighted work and was for the defendant's commercial gain. One can imagine that if the makers of the American College Test ("ACT") simply copied the SAT and administered it, scored it, and mailed scores to colleges to be used in admissions decisions, the SAT's value would be lessened. However, this is not the case, as the ACT devises its own questions, and in fact, tests a type of aptitude not tested by the SAT — an aptitude for science.²⁵⁰

Cases in which a *commercial* competitor has infringed seem like clear cases in which fair use would not be an appropriate defense, but what about cases in which a *non-commercial* competitor develops a test based on a plaintiff's test? Imagine a pure research situation, that is, the scenario Congress envisioned when it enacted the fair use provisions. Imagine researchers who take the MMPI as a basis for a new test and improve upon it, or imagine a set of researchers who believe

247. See *supra* notes 161-90 and accompanying text.

248. Compare *Rubin v. Boston Magazine Co.*, 645 F.2d 80, 84 (1st Cir. 1981) (defendant's use of plaintiff's copyrighted material affected plaintiff's potential market for his test; *Reader's Digest*, who was interested in getting a license to use the scales in that publication, would be less inclined to pay plaintiff for the use of the material after it had already been published in defendant's magazine).

249. See also *id.* (defendants demonstrated that the copyrighted materials were used as a quiz to entertain readers and were "of a commercial nature").

250. See ACT ASSESSMENT, *supra* note 236, at 28 (sample items for the "Science Reasoning Test").

Although the above analysis concerned a test that is maintained under tight security conditions, even if a work has been published or is readily available at no charge from an author, or is available from a publisher for a fee, copying to take over the market and to make a profit would still be detrimental to a plaintiff. Even a plaintiff who has developed a test that has been published in a journal and would gain nothing financially if others used it gains "notoriety" in his or her field. Such individuals look forward to having their tests cited by others in the field; for every citation, they may be one step closer to tenure at a university or a pay-raise or promotion at a research institution. If a competitor is able to freely usurp the market for a plaintiff's test, such value will be lost.

that there are more than just verbal and quantitative aptitudes that are important for college success and who use some of the SAT questions to build upon but develop additional aptitude scales. In neither case are the researchers interested in profit. In fact, the researchers are simply going to publish a journal article that will discuss their new scale, and people will be able to copy the new tests directly from the journals without paying for the copies of the tests or obtain free copies directly from the researchers.²⁵¹ Would such uses be fair in either case?

Arguably, such a use would still not be a fair use. Although the character of the use is non-commercial, non-commercial uses have not always been held to be fair uses.²⁵² In a case such as the one just described, the nature of the copyrighted work is still either based on intellectual and creative labor and should not be copied verbatim or closely paraphrased, or is a secure test²⁵³ and to disclose the questions would be injurious to the value of the test items; i.e., they could not be reused by the plaintiff. If a defendant is allowed to copy the plaintiff's work to build a new test, even in a nonprofit research context for mere publication in a journal, the value of the plaintiff's work is substantially diminished, and the market for the plaintiff's test may become nonexistent. This is particularly true with items that are used over and over again in educational tests,²⁵⁴ and because they would have become public either through direct publication in the journal or through a request from the researchers themselves,²⁵⁵ the security to a plaintiff's test would be breached and test access become unequal.

Why should a researcher be able to paraphrase or copy verbatim the test maker's expression of the questions? Some might argue that copying is justified because of the significant scientific advances the researcher will be able to make by improving upon the existing test. However, how much of a scientific gain is that? Isn't the purpose of

251. Many tests can be directly copied from the journals in which they are published. See, e.g., Spence, Helmreich & Stapp, *The Personal Attributes Questionnaire: A Measure of Sex-Role Stereotypes and Masculinity-Femininity*, 4 JOURNAL SUPPLEMENTAL ABSTRACT SERVICE CATALOGUE OF SELECTED DOCUMENTS IN PSYCHOLOGY 43, No. 617 (1974). However, some authors seek money for the tests and scoring instructions. In such cases, the author would merely report reliability and validity studies and given an explanation of the construction of the test in the journal. In order to get money for the test, the author may have a publisher sell the tests for him or her, as are many of the tests listed in 1-2 MENTAL MEASUREMENTS YEARBOOK, *supra* notes 7 & 58. In other cases, the author may publish a book in which the test is then published. See, e.g., J. REST, DEVELOPMENT IN JUDGING MORAL ISSUES 289-96 (1979) (Defining Issues Test).

252. See *supra* note 213.

253. See *supra* note 221.

254. For the reuse of items on the MCAT, see *supra* notes 220-22 and accompanying text.

255. See *supra* notes 146 & 251.

copyright protection to provide incentives to people so that they will develop new tests? If other researchers develop their own tests, they will also receive copyright protection for their works, and ultimately, science will benefit from new theories and methods of testing. The copyright holder can choose to improve upon his or her own test; a defendant should try to develop a new test. To increase an existing test's reliability, *i.e.*, goodness of the individual test questions, may be helpful, but researchers should develop tests that are more valid, that is, more meaningful in measuring constructs of interest. To allow a defendant to copy a plaintiff's work is not furthering that goal. If a researcher is interested in new ways to measure aptitude, for example, let that researcher develop a test that, if nothing else, could *supplement* the plaintiff's test, rather than *supplant* it.

C. The Defendant's Use for Other Research Purposes

The fundamental justification for the privilege of fair use lies in the constitutional purpose in granting copyright protection, which is "To Promote the Progress of Science and useful Arts."²⁵⁶ The Copyright Act itself suggests that, if scholarship or research is the basis for the use of the copyrighted work, such use is a "fair use."²⁵⁷ In fact, some courts have recognized that scientific works are entitled only to limited protection when they are used for scientific or scholarly purposes and not when used for commercial gain.²⁵⁸

A researcher who sets out to test the reliability or validity of a plaintiff's test or tries to correlate the test with other measurement instruments or behaviors is trying to broaden the knowledge base surrounding that test. In order to accomplish these tasks, a researcher must copy a test verbatim for administration. While this clearly constitutes a taking of the author's expression, is such a use nevertheless a fair use?

There have been no cases to date that have considered this situation. However, this situation will be considered below, applying the four factors for fair use specified under the Copyright Act.²⁵⁹ The purpose and character of a researcher's use is markedly different from a competitive test maker's or review course preparer's. Although a researcher will copy an entire test verbatim, such a use may be justified. The researcher gathers information about that particular test. Thus, it would make little sense to administer a test that was only *like* the original. The only way to obtain accurate and meaningful results will be to use the exact test.

256. U.S. CONST. art. I, § 8, cl. 8.

257. 17 U.S.C. § 107 (1988).

258. *See Sampson & Murdock Co. v. Seaver-Radford Co.*, 140 F. 539, 541 (1st Cir. 1905).

259. *See supra* text accompanying note 202.

Furthermore, the researcher's efforts are not motivated by monetary profit.²⁶⁰ Instead of trying to usurp the market for a plaintiff's test, the researcher will be helping psychologists or educators better understand the creator's test itself. Information about the reliability and validity of the test may be gained that may go beyond the knowledge the author gathered in standardizing the test. For example, a researcher might ask: "Is this test valid when applied to special subpopulations such as women and minorities versus the general test-taking population?"²⁶¹

In addition, a researcher may be able to develop additional uses for an author's test.²⁶² For example, a researcher might demonstrate that a test is a good predictor of certain clinical disorders. Clinicians might choose to use the test to better anticipate clients' problems.

Thus far, these research uses seem to be fair uses. However, consider the nature of the copyrighted work. In this context more than in the previous two, whether the work is a secure test or is readily available either in journals or from the author or publisher will make a tremendous difference in the analysis. As discussed in the context of the MCAT, secure test questions are not readily available because they are reused. Even though a researcher might gain valuable scientific information from the study, by exposing subjects to questions that they might encounter when taking the plaintiff's test for its intended purpose, the researcher diminishes the value of the copyrighted test.²⁶³

In contrast, if a test has been published and is readily available, the dangers associated with exposing subjects to the test questions are minimized. In fact, most tests that are made available grant permission to a researcher to use such works. The nature of the published test implicitly carries with it the right to use the test either for free or for a small fee.²⁶⁴

Of course, if the test is readily available and permission is obtained from the authors to use the test, there is not even an infringement problem. However, if the test is unpublished and permission is not granted, the creator's ability to reuse the items will be significantly diminished. Even if the test is readily made available, there may still

260. Although there are often research grants provided by the government or academic institutions, such financial incentives are not even in the same league with the type of financial rewards that the competitors are anticipating. *See supra* note 222 for information regarding the prices of the SAT.

261. *See supra* note 88.

262. While it is possible that the researcher may demonstrate the invalidity of the test, and thus, lessen the market for that test, this information is still important. It is necessary to know that this test is not a "good" one. In identifying poor tests, scientific progress is made.

263. *See supra* text accompanying notes 220-22.

264. *See supra* note 146 for an example of such permission.

be a problem if the test is available for a fee and the researchers choose not to pay that fee for any or all copies of the test, but duplicate the test and use it in the experiments. Here the market of both the author and publisher of the test is certainly reduced. Such a use would seem unfair given the economic investments in such tests.²⁶⁵

However, one court has found that where science has advanced, a loss of fees for individual copyrighted materials may be justified. In *Williams & Wilkins Co. v. United States*,²⁶⁶ the plaintiff was a publisher of medical journals and brought suit against the National Institute of Health ("NIH") and the National Library of Medicine which commonly made photocopies of articles in medical journals rather than purchase additional copies of the journals. The plaintiff published journals for profit. The defendants subscribed to several of the plaintiff's journals but only purchased two copies of each journal. Generally, one copy remained in the library reading room, and the other copy circulated among interested NIH personnel. Sometimes demand by employees for access to the plaintiff's journals was not met by the in-house subscription copies. Consequently, the defendants would photocopy articles at an employee's request.

The plaintiff alleged that, but for the photocopying, more journals would have been sold to the defendants. However, the court considered the defendants' use to be a fair use. The court recognized that the nonprofit institutions were devoted solely to the advancement and dissemination of medical knowledge.²⁶⁷ The court stated that if the defendants were not permitted to copy these articles, the scientists might not get to read the articles in a timely fashion. Thus, the dissemination of medical research results would be limited, and the advancement of science inhibited. The court believed that the libraries would not purchase extra copies of the journals; the result would be that medical and scientific personnel would simply do without many of the articles that they needed to use in their work.²⁶⁸ The court decided that there was no harm to the plaintiff; since the libraries were unlikely to buy more copies of the journals and the plaintiffs were not in the business of publishing reprints of the articles, the plaintiff did not lose any income.

Although additional copies of the medical journals could have been purchased, the court permitted the photocopying. Clearly, the court was incorrect when it stated that the plaintiff's market was not affected because the plaintiff was not in the business of publishing reprints. The plaintiff was affected; the plaintiff would have been able to sell more copies of the original journals if the court would have told

265. See *supra* text accompanying notes 89-94.

266. 487 F.2d 1345 (Ct. Cl. 1973), *aff'd*, 420 U.S. 376 (1975).

267. *Id.* at 1354.

268. *Id.*

the defendants that if they wanted additional copies they would have to pay for them. Nevertheless, the reason the court came to this conclusion was because of the necessity it perceived existed at NIH and the remote possibility that NIH would have allotted money for additional copies of the journals.

A similar analysis could apply in the pure research setting in which tests are copied. Even if a researcher copies published tests without paying for them,²⁶⁹ the researchers may be doing so to advance science. Furthermore, the researcher may not have the financial resources to pay for individual copies of the tests and answer sheets if they are only available for a fee. Often research funds are limited or nonexistent. Thus, if the researcher is forced to pay for the test, the research may simply not be done. Ultimately, science will suffer from this restricted access in this context.²⁷⁰

The advancement that science will make at the expense of the authors of tests is justified in this context. The author loses nothing more than the fee for the test if there was one to be had in the first place.²⁷¹ The author does not lose a chance to create "derivative works" from the test.²⁷² Often the areas other researchers investigate using an author's test are unrelated to an author's ideas about the potential uses of the test. Even in the context of reliability and validity research, an author may have done all that he or she would have done when the results were first published in a journal. Even if he or she would do further reliability and validity checks for the published test, additional research can only *help* their test not destroy the market for the instrument.²⁷³

VI. CONCLUSION

Copyright issues regarding test questions arose very early as people began to recognize the financial value of educational and psychological tests.²⁷⁴ More cases arise as a defendant attempts to usurp a plaintiff's

269. Unpublished tests will not be considered further because as stated before, if the researcher uses an unpublished test without permission, the disclosure of items may affect the test maker's ability to reuse the test items. Such a use is not a fair use.

270. This is not the situation in which a clinician makes multiple copies of tests and answer sheets to administer to clients. Clinicians should be obliged to purchase the materials to administer the MMPI or some other tests because they are not conducting research *per se* but are engaged in treating clients. Although their use of the test may be helping these individuals, science as whole is not advancing, and in any event, they are doing this work for a fee and can certainly afford to pay for copies of the tests.

271. Again, many tests are published in journals and may be copied from the journals without paying any additional fees. *See supra* note 251.

272. *See supra* text accompanying notes 232-35.

273. *See supra* note 262.

274. One of the earliest cases involving copyright protection for test questions was a

market for such tests.²⁷⁵

Educational and psychological tests involve a tremendous amount of creative and intellectual labor, from the selection and wording of questions to the standardization and assessment of reliability and validity of the instruments. Furthermore, there are many ways to test the same constructs so that an author's choice of expression should be protected from appropriation by competitors. In order to protect authors' investments and provide incentives for the creation of such tests, tests should be given a broad scope of protection.²⁷⁶

Competitors who either seek to build new tests to compete with a plaintiff's test or conduct review courses to prepare people for a plaintiff's test should not be permitted to copy verbatim or closely paraphrase a plaintiff's test. Such infringement should not be excused as a fair use because the value of a plaintiff's test is diminished.

However, in the research context, researchers should be given some latitude to copy a plaintiff's test.²⁷⁷ Researchers who test the

case in which a defendant had copied the questions used on commercially-made "flash-cards." *Gelles-Widmer Co. v. Milton Bradley Co.*, 313 F.2d 143 (7th Cir. 1963).

275. One recent test case involved a defendant copying questions from a building inspectors' examination. *Southern Bldg. Code Congress Int'l v. Florida Construction School, Inc.*, DC MFla, No. 89-626-CIV-ORL-19, 11/22/89, *discussed in* 39 PAT., TRADEMARK & COPYRIGHT J. 350 (Issue No. 970) (Westlaw Data Base, March 1, 1990). In *Florida Construction*, the court recognized that the defendant's copying and distribution of the exams subverted the building inspection certification program and created a potential for public injury if unqualified persons received licenses. In addition, the plaintiff was required to draft, reformat, and revalidate significant portions of its examination. Redoing the examination was expensive.

See also *Kepner-Tregoe, Inc. v. Ford Motor Co.*, DC NJ, No. 88-2385, 8/17/88, *discussed in* 36 PAT., TRADEMARK & COPYRIGHT J. 495 (Issue No. 987) (Westlaw Data Base, September 15, 1988) (Ford Motor Co. infringed certain portions of a copyrighted training program in preparing a problem solving course for its dealers' employees; the court enjoined Ford's copying of answers from the copyrighted material, but using a merger analysis, permitted its continued use of similar questions, reasoning that the questions and their sequence were necessary to teach the thought process involved); *Cormack v. Sunshine Food Stores, Inc.*, E.D. Mich. 5/1/87; 7/29/87, *discussed in* 34 PAT., TRADEMARK & COPYRIGHT J. 454 (Issue No. 845) (Westlaw Data Base, September 3, 1987) (plaintiff's surveys/questionnaires used in personnel selection were protectable).

276. Although not considered in this Comment, it is possible that some defendants might argue that a plaintiff's use of a test is anticompetitive. A similar argument was raised in the recent case involving New York's Truth-in-Testing law. *See supra* note 221 for more information about that case. For information regarding a plaintiff's anticompetitive conduct as a possible defense to infringement, *see generally* P. GOLDSTEIN, *supra* note 200, at § 9.6.1.
277. Possibly a court would consider a defendant's ability to pay for the copies of the test if they are available only for a fee. For example, a court might consider the researcher's budget from a research grant. However, if the tests are published in a journal and could be copied without payment of a fee, and the researcher

reliability or validity of *that* test or correlate *that* test with other measurement instruments or behaviors do not diminish the value of the plaintiff's work, so long as that test is already public. However, if the researchers have taken secure tests and administered them, such use would not be fair; the authors would no longer be able to reuse these items once exposed to the public.

When a second user is able to fulfill the purpose of the copyright clause — "to Promote the Progress of Science" — such a use should be a fair use. In the context of this Comment, researchers, not competitors, should be able to use tests, sometimes without even paying for such use, as the resulting studies ultimately benefit society by advancing scientific knowledge about the goodness of and uses for the tests.²⁷⁸

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merely fails to gain permission to copy the tests, there is no significant harm to a plaintiff in relation to the benefit to science as a whole.

278. This Comment has not covered every possible use of copyrighted tests, nor has it considered the copyrightability of the actual scoring processes of these tests. Instead, this Comment has been limited to the analysis of three separate uses in the context of copyright protection for the test and the items. However, the scoring methods may also be protectable. See *Applied Innovations Inc. v. Regents of the Univ. of Minn.*, 876 F.2d 626, 636-37 (8th Cir. 1989).

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